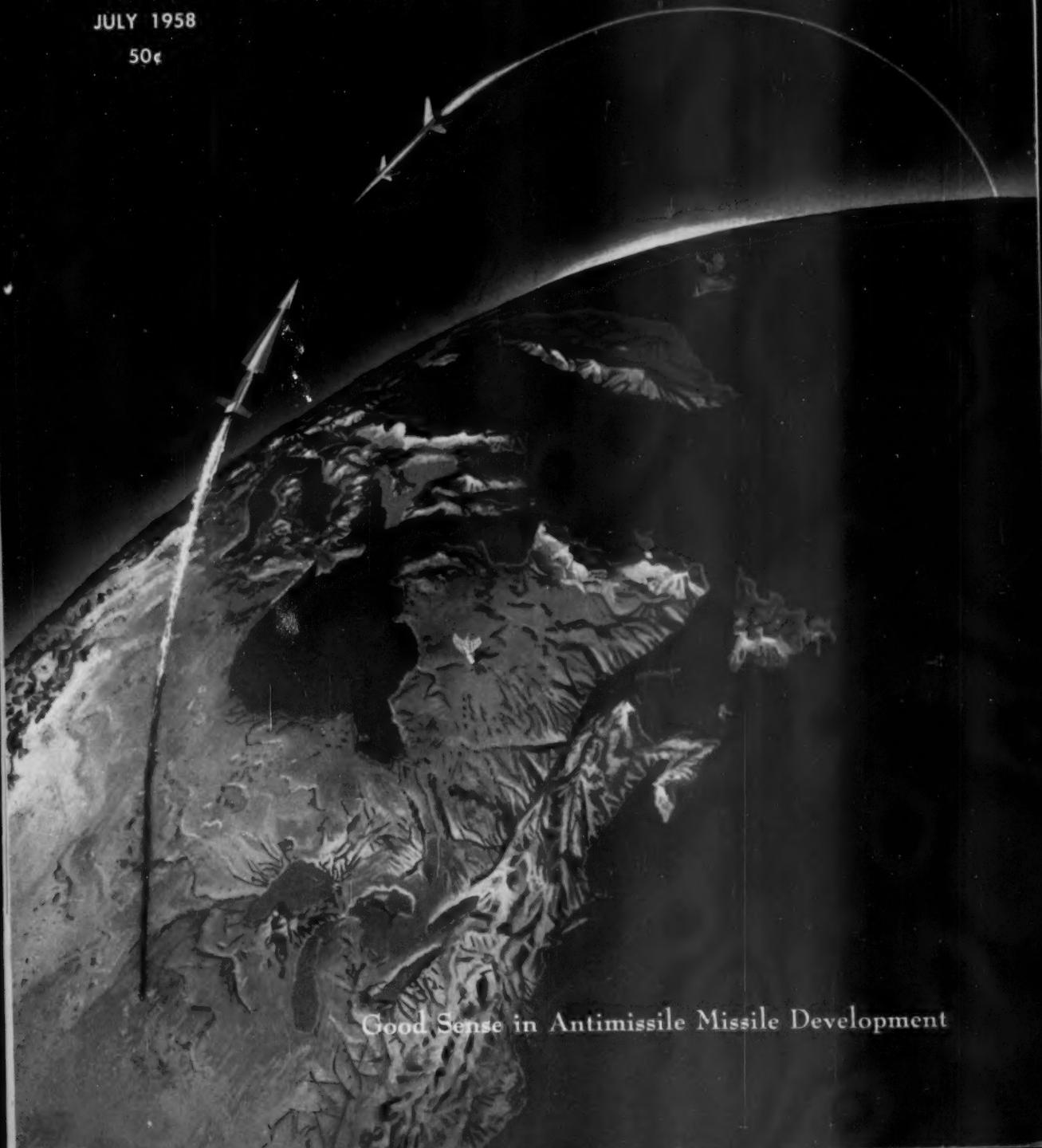


ARMY

JULY 1958

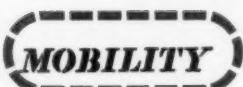
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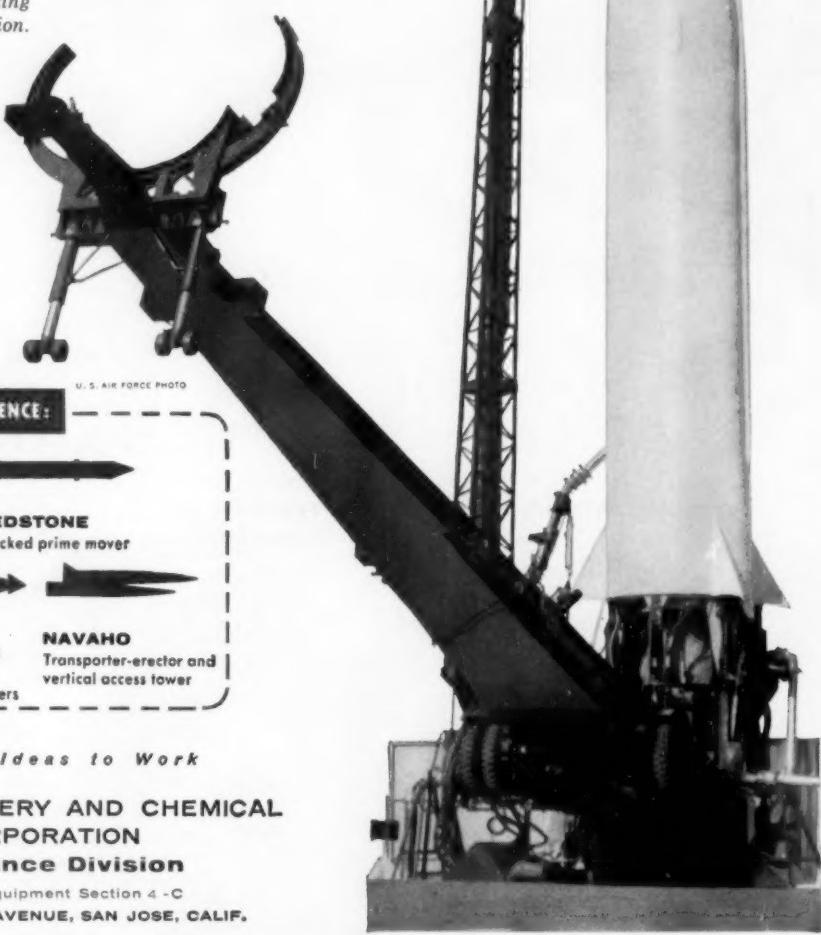
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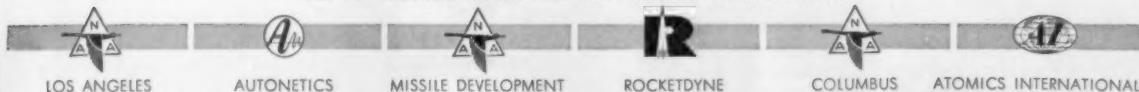
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JULY, 1958

ARMY

magazine of the ASSOCIATION OF THE UNITED STATES ARMY

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Advance man's knowledge of warfare in the fields of strategy, tactics, logistics, operations, administration, weapons and weapons systems.

Advance man's knowledge and understanding of the soldier as an individual, as a member of a trained unit, and as a member of the whole Army; emphasizing leadership, esprit, loyalty, and a high sense of duty.

Disseminate knowledge of military history, especially articles that have application to current problems or foster tradition and create esprit.

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THE MONTH'S COVER

The green light for the development of the Army's Nike-Zeus anti-missile missile will add a vitally important weapon to the defense of the North American continent much sooner than many persons had thought possible. The story about a wise decision by Secretary of Defense Neil McElroy is on page 20. Design by Tom Hickson.

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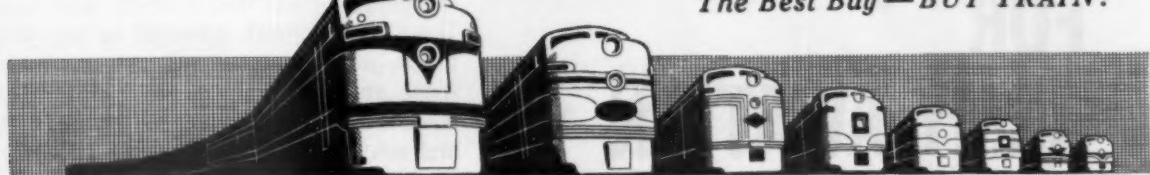


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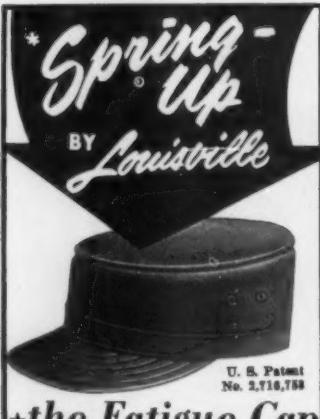


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THE MONTH'S MAIL

Doctrine Must Allocate Means

• Colonel Bennett L. Jackson's "Let's Start with Conventional War" [May] is particularly opportune and important, whether or not one agrees with his main points. Precisely because the idea of limited nuclear war is so attractive—an alternative to thermonuclear holocaust on one hand and relative impotence on the other—it warrants the most searching and rigorous scrutiny.

Certainly the limitations of limited nuclear war ought to be more clearly understood. There are many areas of the world where, given our present technological advantage, the employment of tactical nuclear weapons should assure military success and in turn lead to accomplishment of the objects of policy. It is equally clear, however, that a strategy which is responsive to policy under one set of conditions may be wholly inappropriate in another situation. The development of a spectrum of strategic capabilities is expensive, but our principal failures in the recent past—for example, our strategic unreadiness in 1950—have been due to faults in basic doctrine rather than the lack of money. Doctrine which does not prevent surprise is fatally deficient.

In order to avoid surprise, it is most essential that our doctrine provide a wide range of strategic options. Whether these options exist may be more a question of logistics than of combat organization. For example, if only a small nuclear force and not a larger conventional force can be supported logically, obviously no strategic option of conventional warfare exists. Doctrine is practical only in so far as it allocates means to implement policy and strategy. Failing this, it is only an academic exercise.

Since World War II basic doctrine has developed largely as a result of interservice compromise—frequently forced. The proposed reorganization of the Defense establishment should go far toward providing the authoritative, impartial direction essential to the objective formulation of doctrine.

Before World War II a relatively simple doctrine could serve as the basis for strategic planning—an activity which in itself was limited to a small number of officers in Washington. Today, against a threat incomparably more formidable than any conceived in the past, frequently ambiguous in form, a much more sophis-

ticated doctrine is required, and a much larger number of officers (some relatively junior in rank) are concerned with planning and implementing policy and strategy, not only in Washington, but in various international headquarters, unified commands and missions throughout the world. It is essential that these agencies be staffed with officers of great strategic imagination.

The background required for bold, sound strategic planning and management takes years to acquire. The serious study of national policy and the basic problems of war should begin at the outset and continue throughout an officer's career, and not be left until he has some twenty years of service behind him, as is now generally the case. The recent wide distribution of a DA pamphlet on limited war is a good first step in this direction. It might well be followed by offering to all officers, regardless of rank, an extension course in policy and strategic doctrine comparable to the Industrial College's extension course on emergency management of the national economy.

LT. COL. THOMAS S. JONES
Dallas, Tex.

Historic Color

• "Don't Bug Out on the Flag," in the April issue, was most interesting and timely. This article should attract the attention its subject merits and produce favorable results throughout our Army. Mr. James C. V. D. Brown deserves special mention for reminding us of the importance of this aspect of tradition.

I was interested in the picture on page 40 which illustrated the article, since it bore no caption. I wondered if the picture was filed without a story and whether its significance was fully appreciated.

This picture was taken at Fort Ehrenbreitstein, Germany, opposite Coblenz, on Army Day (6 April) 1945, when the color was being raised. Historically, it is the same color that was lowered by troops of the 8th Infantry Regiment at Fort Ehrenbreitstein on 23 January 1923, marking the termination of the U. S. occupation of Germany following World War I. This ceremony was conducted in accordance with instructions of General Omar N. Bradley, 12th Army Group commander.

The troops taking part in the ceremony



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consisted of the band of the 28th Infantry Division; a composite platoon composed of men from each division of 12th Army Group; two platoons from the 8th Infantry representing their predecessors who had hauled down the color in 1923; and two platoons from the 69th Infantry Division whose troops had recaptured Fort Ehrenbreitstein only about two weeks before. The fort, the ceremony and the troops were commanded by me, then a lieutenant colonel and executive officer of the 112th Infantry (28th Division).

The honors were received by Gen-

eral Bradley and his four army commanders—Patton (Third), Hodges (First), Gerow (Fifteenth) and Simpson (Ninth)—and witnessed by thirty-one other general officers and several hundred spectators. The generals whose helmets appear in the picture are believed to be Maj. Gen. Norman D. Cota (now retired) on the right, then commanding the 28th Division, and Brig. Gen. Basil Perry (also retired), commander of 28th Division Artillery.

This ceremony was never given wide publicity, nor is publicity considered fitting at this time. However, for the record, I feel it desirable to provide you these data for file with this picture which is of significant historical importance.

BRIG. GEN. WILLIAM F. TRAIN
APO 111, New York, N. Y.

• Good pictures of colors and retreat ceremonies are hard to find. Usually the photographer gets only part of the color in his shot. The picture General Train describes was the only good one at hand, so we used it to illustrate "Don't Bug Out on the Flag." The caption does identify this color as the same that flew over Ehrenbreitstein when it was garrisoned by Companies D and M of the 8th Infantry. Space requirements caused us to crop the picture for use in the April issue. Here is a full view of the ceremony General Train describes.

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The Guard Belongs Too

• "The Army's Month" in the May issue says in connection with the Reserve Component Reorganization Plan, "To no one's surprise, opposition has been heard from the National Guard Association." As Second Vice President of the Palm Beach Chapter of AUSA and a dyed-in-the-wool Guardsman, I find that this sentence, unexplained, smacks of innuendo. Why not tell ARMY readers why the Guard is opposed?

First off, let's state categorically that the Guard is champing at the bit to go Pentomic—only Department of the Army is holding us back. We will willingly accept all cuts necessary to accomplish this, but what has Pentomic reorganization to do with a cut of six combat divisions? This we will not accept and neither should AUSA. How much longer must we hear the same old theme that the more the active and reserve forces are cut, the stronger the U. S. becomes?

"We" are the officers of the National Guard of the several states who support our association in Washington to represent us in Washington. We believe in an old-fashioned concept that the responsibility for defense and security lies with the individual citizen and community. Our formidable force of twenty-one infantry and six armored divisions surpasses in every way those of the Army Reserve—our smallest division is larger than the Reserve's largest—and in many respects we are now rivaling units of the Regular establishment. Many Guard units existed a hundred years before there was a United States or a Regular Army. Our officers corps' academic requirements are more stringent than are those of the Active Army, and our personal sacrifice both in peace and war is surpassed by none.

We are unimpressed by an attitude that seems to pervade the Pentagon that its inmates have a monopoly on patriotism and wisdom. Frankly, we are sick of vacillating, seesaw policies which call for reserve strength in the millions one day and tens of thousands the next. It takes no clairvoyant to see that these changes are the product of neither relaxed world conditions nor intelligent planning. Community enthusiasm cannot be turned on and off like a faucet every time a new administrator is hired in Washington.

If we are really one army, as Mr. Brucker says, why was not the National Guard Bureau informed of the planning and asked for its opinions? Why label it secret? Why plan to cut out some of the strongest divisions in the troop structure rather than the weakest? Why expect governors to sanction the destruction of units in the only force that can take immediate rescue action in time of nuclear attack on our cities? Why do we get half-truths, double talk and broken promises?



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Only a year ago the Guard agreed to scale down from 440,000 men to 400,000 on the promise by the Secretary of the Army and the President that it would not be allowed to go lower. Now an additional cut of 40,000, to a strength of 360,000, is being planned. [The full 400,000 was recently restored by a Congressional committee.—Ed.]

But what Guardsmen really want to know is, why does the Army cut its own hard-pressed throat? In the May issue of ARMY is an excellent article on public relations—my own profession, incidentally. Can't the Army understand that in the Guard's officer corps of 40,000 are not only some of the most dedicated officers of the Army of the United States, but also some of the country's most influential citizens? We want nothing more than to shout the Army's story from the rooftops and advance the Army's cause.

CAPT. ROBERT DE MARCELLUS
Palm Beach, Fla.

- Neither the writer of the phrase "To no one's surprise . . ." nor the Editor who passed it meant any reflection on the National Guard. The expression was meant to convey the idea that the National Guard was on the alert as it always is. The National Guard is wholeheartedly accepted as a member of the team by the Association of the U. S. Army. Indeed, AUSA has a committee, headed by Maj. Gen. Jim Dan Hill of The Wisconsin National Guard, to advise it on National Guard affairs. Finally, AUSA also opposed the proposed reduction.

ARMY Sells a Career

- I have been a member of AUSA for almost a year now, and I still look forward to each new issue. ARMY has done much to convince me that a career in the service is worthwhile. It has helped me to keep up with all the revisions taking place and, most important, to understand them.

However, I submit a request. Please include some articles on basic concepts and tactics of small units, written so that they are instructive to an unschooled, but interested, private.

Keep up the good work!

PVT. DAVID O. ROWELL
APO 800, New York, N. Y.

Command Ribbons

- Articles in ARMY during recent months seem to indicate that there is a general requirement for additional recognition of achievements in the form of service ribbons, and that command duty probably does not receive the public recognition it deserves.

Perhaps a service ribbon could be authorized for those whose service in command positions totals one year or more. The accompanying illustrations are my suggestions for company, battalion and



Commanded company or battery for one year or more.



Commanded battalion for one year or more.



Commanded regiment for one year or more.



Commanded company, battalion and regiment for one year each.



Clasps for first sergeant, battalion sergeant major, and regimental sergeant major. (Background enamel on metal clasp should indicate branch color at time award was earned: blue for Infantry, scarlet for Artillery, and so on.)

regimental levels, and combinations of them. These ribbons would readily identify the wearer and complete the story that his other service ribbons and his insignia of rank tell.

LT. COL. CARY A. KENNEDY, JR.
APO 46, New York, N. Y.

Second Jobs and Promotion

- I agree in principle with Captain Wallwork's "Second Lieutenants and Automatic Promotion" [May]. Promotion should, however, start a bit earlier, with outstanding second lieutenants being promoted after twelve months of service.

As another class of 1952 graduate (Cornell) I feel I can add to Captain Wallwork's initial list of corrective measures that "would really mean something." First, that in no case would promotions in the reserve components be faster than those earned by persons remaining on active duty; and second, that the requirement for active duty for graduates of the Military Academy be the same as for the new enlisted education program: three years of active duty for each year of schooling received.

LT. BARTON M. HAYWARD
Grand Forks, N. D.

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Good Sense in Antimissile Development

editorial

THE American people and the Congress are getting a deserved break in the organization for development of an antimissile missile. That the full potentialities of such a system are being expeditiously developed in an atmosphere of easily identified administrative authority and developmental responsibility, is the result of a wise decision that recognized the experience and competency of the Army in missile systems development.

As a result, it can be expected that an effective anti-intercontinental-missile missile system will come into being quicker than anyone would have thought possible a year or so ago. One estimate by a qualified witness is that a deployed system is possible by 1962, provided more money is made available. This happy circumstance can mean immense savings of public money, greater safety for all of us, and measurable improvement in both civil and military morale.

'As a matter of urgency'

The antiballistic-missile problem has been the object of painstaking scientific, military and political attention for several years. The problem has been studied, analyzed, investigated, dissected, and all but buried at times under a mass of papers and committee actions and inactions. One observer has said that it has received more concentrated attention than any other weapons system in history.

But 16 January 1958 is a date to remember. On that day Defense Secretary Neil McElroy took action. In memoranda to the Secretary of the Army and the Secretary of the Air Force he directed "as a matter of urgency":

"That the Army continue its current development effort in the Nike-Zeus [antimissile missile] concentrating on system development that will demonstrate the feasibility of achieving an effective AICBM [anti-intercontinental ballistic missile] system in an electronic countermeasure and decoy environment.

"That the Air Force continue that part of its current development effort in the Wizard [antimissile missile] program that pertains to early warning radars, tracking and acquisition radars, communication links between early warning radars and active defense system and SAGE, and the data processing components required to form an integrated system."

The memorandum to the Secretary of the Air Force went on to say that the developments of the Air Force would be made compatible with the Nike-Zeus weapon and system. "The Air Force program will be limited at this time to the work in the above areas," the memorandum stated, and it continued: "As the Army will perform the basic development related to the missile and launching system, no further Air Force effort in this area should be supported without the specific approval of the Director of ARPA [Advanced Research Projects Agency]."

ARPA bosses the show

The memorandum to the Secretary of the Army went on to say that the Army will "work on the missile and launch system, and those acquisitions, tracking and computer components required for an integrated missile system." It said that Army developments of other elements of the system should be "limited to that required for planning purposes, and should be compatible with Air Force planning and development which is sponsored under the Wizard program." Overall direction of the development is in the hands of ARPA.

These clear and wise directives brought order to the development of the antimissile missile. In the words of one person closely associated with the anti-ICBM program, it "was a much needed and very welcome clarification in an area which had been the subject of much controversy."

It brought words of praise from Rep. Carl Vinson, Chairman of the Committee on the Armed Services of the House of Representatives. In a letter to Mr. McElroy, Mr. Vinson wrote: "Your action in reaching a decision on this matter was most encouraging to the Committee and the announcement met with spontaneous approval on the part of the Committee."

'Something useful, something improvable'

What this means is that the Army, through its experienced Army Ordnance Missile Command, is proceeding to develop and produce a Nike-Zeus weapons system in an urgent but orderly fashion, following its proved philosophy of weapons systems development.

Stated very briefly the Army philosophy is to "produce something useful, something improvable." It con-



THE ARMY'S H-23D RAVEN: INVESTMENT IN TOMORROW

Over 20 major improvements distinguish the H-23D as one of today's most advanced helicopters. But several features in particular verify its unmatched *growth potential*, which is a prime requisite for the evaluation of any helicopter investment.

Basic Ruggedness: The H-23D has the highest flight and landing load safety factors of any two or three place helicopter flying today.

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The H-23D is now prepared to receive a new 305 horsepower engine, without further major modification. The resulting UH-12E (prototype now flying) has already demonstrated a performance which will capture new missions beyond those previously conceived for this helicopter class.



HILLER HELICOPTERS

PALO ALTO, CALIFORNIA

siders the state of the art within the time frame of the development, and the need for building into the system a capacity for modifications as advances in the state of the art suggest improvements.

In 1945 it was said that Nike-Ajax wasn't possible. It is operational today. Advances in the art of ballistic missiles made Nike-Hercules possible and it will soon be operational. Nike-Zeus is the next step. The basic feasibility of intercepting an ICBM warhead at the range contemplated for Nike-Zeus has never been questioned. On the other hand, no one has ever postulated a satisfactory solution to the problem of area defense against ICBM warheads. Indeed, the old point-defense *versus* area-defense controversy loses all validity when the problem of anti-ICBM defense is considered.

Other advances will follow the original Nike-Zeus as additional knowledge is acquired. Each of the Nike family of weapons has been or will be useful, each has been or will be improvable.

This built-in capability for improvement should not be misinterpreted. The philosophy is flexible rather than rigid. It builds upon past experience rather than upon past systems. Thus, while Army Ordnance and its principal Nike-Zeus contractor—Bell Telephone Laboratories—have had years of experience in developing weapons systems (Bell Lab was developing the Army's famed M9 electronic computer for AA guns as early as 1938), they are philosophically free to adopt what is new, using the judgment acquired from their years of experience. This means that they can, when the state of the art permits, leap far in advance with reasonable confidence.

The need is urgent

This capability is most important in the case of the antiballistic-missile program. The need is urgent. A close reading of the unclassified portions of Congressional hearings makes it clear that competent witnesses* have satisfied these committees that Soviet ocean-spanning missiles are so far advanced that this nation will be in peril before an antimissile system can become operational, unless a crash program is given the green light all the way.

Mr. Vinson in his letter to the Secretary of Defense urged a speed-up in the program. "The [Armed Services] Committee is aware of the projected date when the system would become operational under current planning and financing," he wrote Mr. McElroy. "The Committee is also aware of the conclusions that the Russians will have a substantial operational capability for their IRBM and their ICBM systems within

*It was stated during hearings by the House Armed Services Committee that General Earle E. Partridge of CONAD, had been quoted by *The New York Times* as saying: "If the aggressor's weapon is the ICBM, the continent stands almost as naked as it did in 1946, for I have no radar to detect missiles and no defense against them." This is an interesting comment since some Air Force people speak as though the SAGE system can be used to track supersonic missiles. The very name of SAGE—Semi-Automatic Ground Environment—suggests otherwise. No semi-automatic system will be fast enough to handle the ICBM problem.

that period of time. If these assumptions are sound, and highly respected witnesses tell us they are, then time becomes a most important element in attaining an anti-missile capability. For this reason the Committee has required the Army to furnish its best estimates on the possibilities for accelerating the availability date."

The Administration's program called for the expenditure of about \$262.7 million for the Nike-Zeus system in Fiscal Year 1959. This will be both for research and for development of hardware. An Army suggestion that the timing was so critical that production of operational systems be conducted concurrently with final development work was rejected.

In his letter to Mr. McElroy, Mr. Vinson said that the Army had proposed a two-year acceleration of the program which would be possible if an allotment of \$136 million was made available to the Army not later than 1 April last. "If time is as important as I believe it to be in this particular area, then I must conclude that the expenditure of this additional sum is warranted and that a decision to this effect should be made at the earliest practical date," Mr. Vinson wrote.

The decision to not speed up the program was Mr. McElroy's—one of the kind that he said "a Secretary of Defense has to be prepared to answer to his Maker for." If he is wrong, he will be wrong, as he also said, "in an area which is terribly unfortunate to be wrong in." We can hope that he will be proved right.

Three paper plans

An understanding of the Army's philosophy of weapons development and its special relation to the Nike-Zeus system is essential to the antiballistic-missile story since the whole story involves another system and a different philosophy. This is the Air Force Wizard anti-ICBM system. It is important to understand that the Wizard system is thus far only a paper plan—in fact three paper plans, each prepared by a different team of industrial firms under USAF contracts. In February of this year it was testified that the Air Force was not yet prepared to make a decision on which plan should be pursued, and indeed the tenor of testimony by Lieutenant General Donald Putt, Deputy Chief of Staff for R&D, USAF, on the subject of antimissile defense led Mr. Robert Smart, Chief Counsel of the House Committee on Armed Services, to say: "Well, I can't help but deduce from what you said, General, that our antimissile missile program is so circumscribed in capabilities that we can't help but doubt the wisdom of proceeding with it."

An example of the kind of testimony Mr. Smart was referring to came later when General Putt said:

"We do not feel that we are at that point yet where we could step up to the selection of one [of the three paper plans previously mentioned] and say, 'This is it, and it will do a job commensurate with the resources that have to be put in it.'"

This kind of testimony led Rep. Leslie C. Arends (Rep.—Ill.) to comment: "Well, it seems to me there



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It converts to a fully enclosed personnel carrier...an ambulance that takes four patients...an electronics vehicle that relays news of the battle by radio and television. Seats fold into the platform for quick conversion to a cargo carrier.

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is a complete lack of enthusiasm about what you are able to do to meet this threat that you talk about. That is what bothers me."

It may be that part of the Air Force reluctance to exhibit a sense of urgency in developing an anti-ICBM missile system is its lack of experience in surface-to-air missiles. As General Gavin commented when asked about the different doctrine or concept of employment between the Army and its Nike-Zeus and the Air Force and its Wizard: "I don't know of any doctrine that the Air Force has for employing surface to air missiles because they have never had any, and I don't know what the Wizard is as a missile. I wouldn't be able to describe it to you if I were asked to."

General Gavin was right. It is true that the Air Force is coming out with Bomarc, so far an unproved antiaircraft missile, but it is not yet operational and its eventual effectiveness is suspect. As to Wizard, General Gavin could not have described it because it is, as we have seen, three paper missiles.

Operational responsibility

In the letter of Congressman Vinson to Mr. McElroy, earlier quoted, the Chairman of the House Armed Services Committee raised another point. This had to do with operational responsibility of Nike-Zeus firing

batteries when they are deployed. Mr. McElroy has not yet made a decision on this and Mr. Vinson wrote that he could "not escape the conclusion that there will continue to be some undesirable degree of service strife . . . until you clearly assign operational responsibility."

Mr. Vinson went on to say that it was "abundantly clear" that a weapons system developed by one service is only "compatible with the doctrine of that service so far as deployment and use are concerned." For that reason he urged the Defense Secretary that "operational as well as developmental" responsibility for the Nike-Zeus" be promptly assigned to the Department of the Army.

"Such action on your part would settle those remaining problems and controversies which will not only endure but will increase in magnitude," Mr. Vinson concluded.

Mr. McElroy has not yet made a decision about operational responsibility. We can hope that it will be as realistic as his decision on development.

At a time when defense reorganization is being debated, the antimissile missile decision points up the fact that centralized authority can be competent in decision-making—when it is prompt, objective, has an ear for competent advice, and refuses to be sold paper panaceas.

MAJOR NIKE-ZEUS CONTRACTORS

Bell Telephone Laboratories, Whippany, N. J.—Responsibility for entire development program.

Douglas Aircraft Co., Santa Monica, Calif.—Responsibility for development of missile and associated equipment.

Western Electric Co., Winston-Salem & Burlington, N. C.—Construction of ground guidance equipment.

Batelle Memorial Institute, Columbus, O.—High temperature materials development—metal diffusion.

Coors Porcelain Co., Golden, Colo.—Seeker radome development.

Cornell Aeronautical Labs, Buffalo, N. Y.—Wind tunnel tests.

California Institute of Tech., Pasadena, Calif.—Wind tunnel tests.

Grand Central Rocket Co., Mentone, Calif.—Sustainer and vectored motor development.

National Research Corp., Cambridge, Mass.—High temperature alloy research for structure.

Ohio State Univ. Res. Found., Columbus, O.—Wind tunnel tests.

Stanford Research Institute, Menlo Park, Calif.—High temperature resin development.

Thiokol Chemical Co., Huntsville, Ala.—Booster motor development.

U.C.L.A., Los Angeles, Calif.—High temperature problems in boundary layer.

Firestone Tire & Rubber Co., Los Angeles, Calif.—Instrument environmental tests.

Aero. Physics Dev. Corp., Santa Barbara, Calif.—Hypersonic test vehicle.

Gladden Products, Glendale, Calif.—Experimental nozzle fabrication.

Era Engineering, Inc., Santa Monica, Calif.—Development of material erosion indicator.

Microwave Radiation Co., Gardena, Calif.—Telemetry antenna.

Special Effects Mfg. Co., San Fernando, Calif.—Explosive separation devices.

NACA, Langley Field, Va.—4-inch aeroder tests.

Radio Corporation of America, Moorestown, N. J.—Acquisition radar transmitter development.

Goodyear Aircraft Corp., Akron, O.—Acquisition transmitter and receiver antennas.

Lear, Inc., Grand Rapids, Mich.—Stable platform.

Ryan Aeronautical Co., San Diego, Calif.—Missile borne seeker.

Wheeler Laboratories, Inc., Great Neck, N. Y.—Antenna and feedhorn design.

Dow Chemical Co., Midland, Mich.—Acquisition receiver antenna dielectric.

Paul Hance Productions, Inc., New York, N. Y.—Progress movies.

Microwave Development Labs., Wellesley, Mass.—Development of high power rotary joints.

Sperry Gyroscope Co., Great Neck, N. Y.—Target track transmitter development.

Allis-Chalmers Mfg. Co., Milwaukee, Wis.—Target track antenna drives.

Continental Can Co., Inc., Chicago, Ill.—Target track antenna mount.

Narmco Mfg. Co., LaMesa, Calif.—Target track antenna.

Armstrong Cork Co., Lancaster, Penna.—Development of artificial dielectric.

Burns & Roe, Inc., New York, N. Y.—Architect-Engineers.

Ambassador Plastics, Inc., Chicago, Ill.—Artificial dielectric production equipment.

Koppers Company, Inc., Monaco, Penna.—Development of foam support for artificial dielectric.

Plastic Film Products, Inc., Akron, O.—Development of foam support for artificial dielectric.

Molded Insulation Products, Inc., Philadelphia, Penna.—Development of foam support for artificial dielectric.

McMillan Industrial Corp., Ipswich, Mass.—Development of foam support for artificial dielectric.

Robinson Industries, Muskegon, Mich.—Development of foam support for artificial dielectric.

Perry Plastics, Inc., Erie, Penna.—Development of foam support for artificial dielectric.

Passon Industries, Inc., Painesville, O.—Experimental printed dipoles.

Anco Label & Tape Co., Inc., Freeport, N. Y.—Experimental printed dipoles.



OBSTACLE COURSE FOR A NEW ARMY RECRUIT

No other helicopter ever has been, or will be tested more thoroughly than the Army's IROQUOIS, Bell's all-new turbine-powered HU-1A. Designed to meet the most exacting standards of performance and maintenance ever required of a helicopter, it has already passed through Bell's own rigorous shakedown.

But, before it goes to work in the field, the HU-1A is being "put through the mill" by the Army. A series of tests — the hardest and most realistic any helicopter ever faced — will cover every phase of performance, supply and transportation, maintenance, weather, combat conditions and general military usage.

By testing, evaluating and proving every piece of aviation equipment, the Army assures that the U. S. armed forces get only the best. And in helicopters, that will be the IROQUOIS — the nation's newest front line fighter.

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.. skilled engineering test pilots will "wring out" the HU-1A for performance and stability Phase 4 tests.



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**Army Aviation User
Tests at Ft. Rucker**

.. simulated battle conditions will test the Iroquois for frontline dependability from the desert to the arctic.



**Transportation Aircraft
Test and Support
Activity (TATSA) at
Ft. Rucker**

.. 1,000-hour logistics support tests.



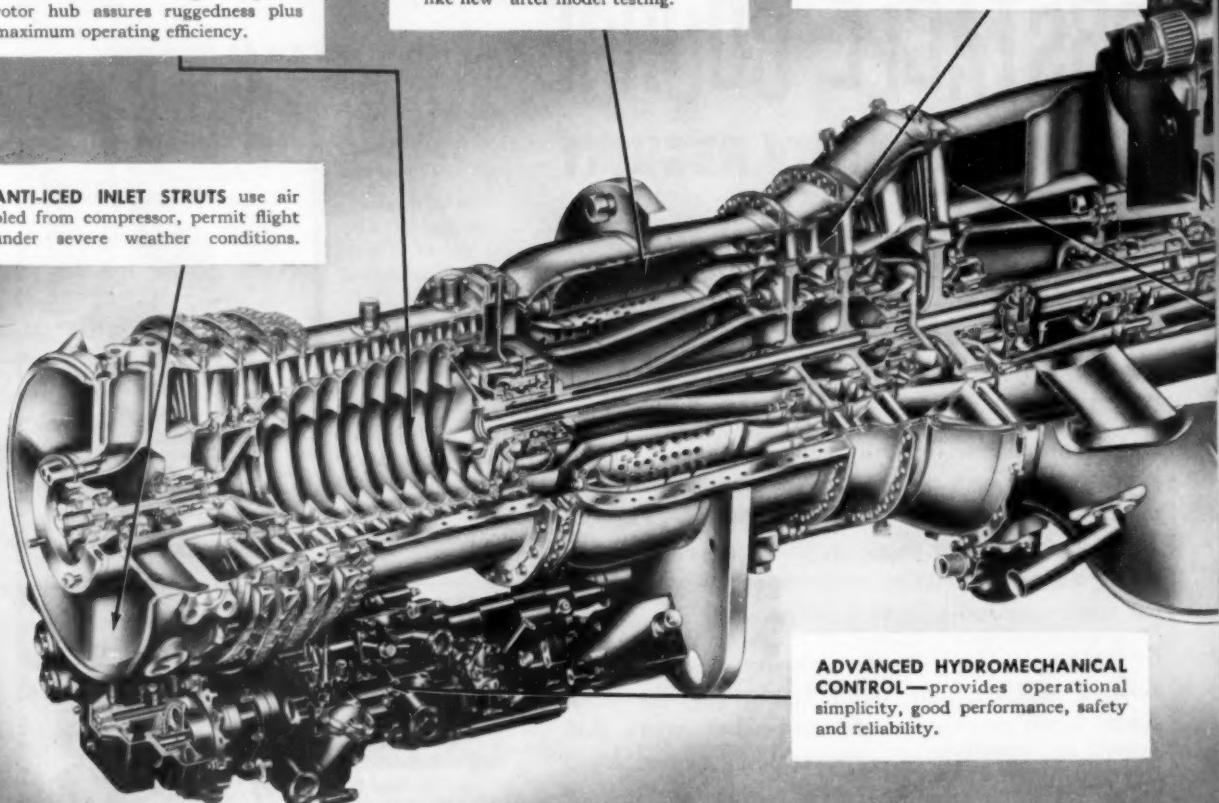
Rugged Design—Proven by Official WHY T58 IS BEST

AXIAL-FLOW COMPRESSOR—10 stages (first stage and inlet guide vanes shrouded)—small, compact, advanced design with one-piece steel construction for last eight stages of rotor hub assures ruggedness plus maximum operating efficiency.

SHORT, SMALL DIAMETER ANNULEAR COMBUSTOR—provides high burner efficiency, proven altitude re-start ability, longer life . . . looked "like new" after model testing.

GAS GENERATOR TURBINE—2-stage axial-flow design with short-chord buckets cuts turbine weight yet retains durability.

ANTI-ICED INLET STRUTS use air bled from compressor, permit flight under severe weather conditions.



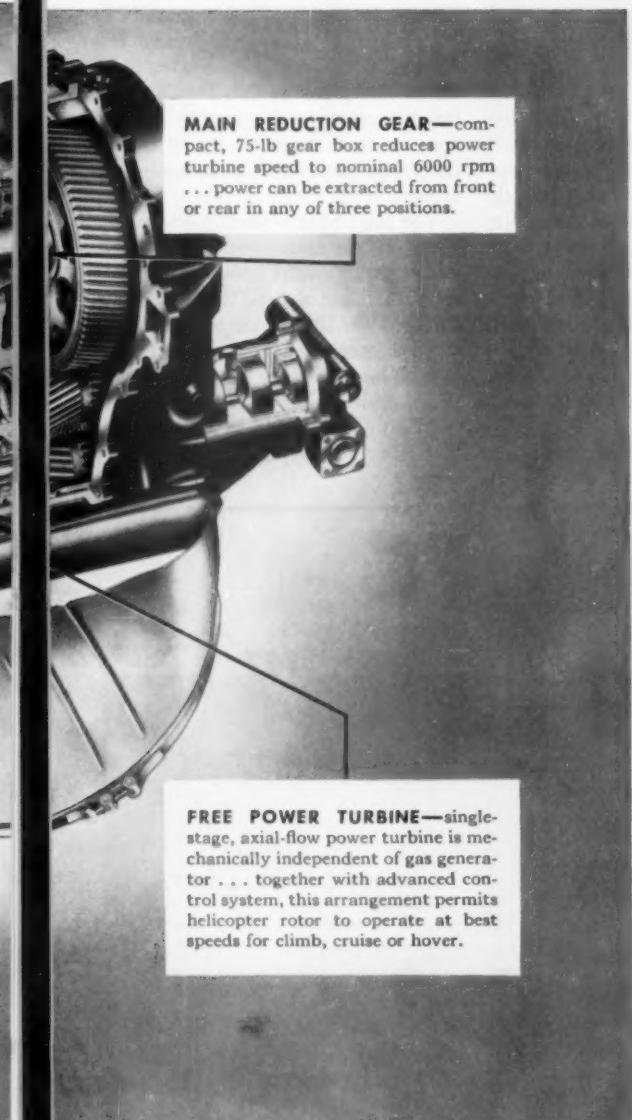
ADVANCED HYDROMECHANICAL CONTROL—provides operational simplicity, good performance, safety and reliability.



T58 FLIGHT TEST PROGRAM began in January 1957 in Sikorsky HSS-1 (left), was recently extended to Vertol H-21D (center) and will include the Kaman HU2K-1 (right). Comprehensive flight, rotor and cell tests have already proven the engine's performance, reliability, control stability and power-splitting ability.

150-Hour Test—is one more reason . . .

FOR HELICOPTERS



MAIN REDUCTION GEAR—compact, 75-lb gear box reduces power turbine speed to nominal 6000 rpm . . . power can be extracted from front or rear in any of three positions.

FREE POWER TURBINE—single-stage, axial-flow power turbine is mechanically independent of gas generator . . . together with advanced control system, this arrangement permits helicopter rotor to operate at best speeds for climb, cruise or hover.

Exacting Endurance Test Program Proves Outstanding Durability of General Electric's T58

Official 150-hour Model Test results accepted by the Navy's Bureau of Aeronautics prove that General Electric's T58 engine offers helicopters not only extraordinary performance and operating advantages, but also outstanding durability and ruggedness.

DURABILITY OF THE T58 engine design was thoroughly proved during the 150 hours of rigorous testing, more severe than actual flight conditions. T58 official test results *exceeded* all performance guarantees. For example, the T58 produced 1065 military hp, compared to the guaranteed 1024 military horsepower. Normal rated SHP, guaranteed at 875 hp, was increased to 920 hp. Both military and normal rated SFC guarantees were bettered.

RUGGEDNESS OF THE T58 engine design was proved by its exceptional performance under the severe accelerating and decelerating, stops and starts, loads and overloads. Official test results show:

- All required 75 starts exceeded specification guarantees. Typical acceleration time to idle speed bettered guarantee by over 40%.
- All engine throttle burst times were well within guarantee limits. Acceleration times from idle to 100% power were four times better than guarantee.

ADVANCED AERODYNAMIC DESIGN. Engine cut away at left shows the advanced design features that make possible the T58's exceptional performance and ruggedness . . . features that truly promise new levels of military and commercial usefulness for helicopters.

For more information about the T58: call your local G-E Aviation and Defense Industries Sales Office, or write General Electric Company, Section 233-10, Schenectady 5, N. Y.

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THE ARMY'S MONTH

June is a month in which people find themselves knee deep in commencement oratory and weddings. But to U. S. soldiers, sailors and airmen, June 1958 is the month they began to live under a modern pay system that while not perfect, recognizes the requirements of the time and is a far better system of compensation than many persons thought was possible to obtain.

June 1958 also saw Congress take steps toward reversing the downward trend in the strength of the active Army, and restoring proposed cuts in the strength of the Army National Guard and Army Reserve.

There was also important, but not final, action during the month on legislation to reorganize the Department of Defense.

The position of the Association of the U. S. Army on these matters was in most cases partially, at least, met and maintained.

The condition of STRAC

The Army's announcement of the creation of STRAC is in gratifying conformity with the AUSA Resolution calling for the creation of a "four-division, full-strength, highly mobile striking force within the Strategic Reserve." What STRAC presently lacks is full-strength strategic and tactical mobility and complete readiness.

Like a hustling big-league ball club that is composed of a mixed lot of canny, able-bodied veterans and promising young rookies on their way to fame, STRAC as a concept has that indefinable aura of quality that bears the

promise of success, and it could be a godsend to this nation in this age of peril. But STRAC as it is (and it hurts to say this, and it is not meant to be critical of the Army) isn't Big League—yet. The possibilities are there and exciting possibilities they are too, but the owners are going to have to spend a little more money to plug a couple of gaps, and to re-equip the team.

You can't be successful in the league STRAC is in unless you give full time and attention to the job of being ready for battle. And that STRAC isn't able to do today. One of its elements, the 4th Infantry Division at Fort Lewis, Wash., has a training mission and furnishes replacements for Alaska and the Far East. The 1st Infantry Division at Fort Riley, Kan., and the 82d Airborne



. . . in
honored
glory

In Memorial Day ceremonies, President Eisenhower pinned a Medal of Honor on the casket of the Unknown Serviceman of the Korean War. A few minutes earlier he had pinned one on the casket of the Unknown Serviceman of World War II. He did this, he said, "on behalf of a grateful people."

at Fort Bragg, N. C., are planning to gyroscope battle groups to Europe in the next few months; and that means re-manning and re-training a vital portion of each division. This is like giving tryouts to a group of young rookies during the regular season. It can't be done successfully and at the same time maintain a top position.

The 101st Airborne at Fort Campbell, Ky., is in the best shape of all. Its weaknesses are largely deficiencies in new equipment and weapons—in the modernization that is essential to the success of the Pentomic concept. This has been too long postponed because of cost.

This is not to say that those parts of each division that are intact and trained wouldn't give a good account of themselves if called upon. They would. But the number of ready battle groups they could field at any one time presently or in the next year or so under present plans would be considerably less than the twenty that is their full potential. And whatever their number, they would be going into action largely with Korea-era bats and balls instead of the new gear that is



Gen. Maxwell D. Taylor, Army Chief of Staff, congratulates Pvt. William T. Campion of Des Moines, Iowa, after swearing him in as the 7,500th member of the 103d Infantry Division, currently the largest division in the Army Reserve. The ceremony was a highlight of Armed Forces Day celebration at Des Moines, during which General Taylor reviewed the parade and delivered the key address at luncheon.

vital to the new tactical concepts that dictated the Pentomic organization.

The new equipment and weapons that STRAC needs would give it the battlefield mobility that is essential to success in combat. But it will not give STRAC the capability of getting to the scene of battle quickly. This capability is the essence of its influence as a deterrent to limited war adventures by the Communists. Until adequate and fast air and surface transportation for both short and long hauls is made available, STRAC's full potential cannot be realized. This important fact is beginning to occupy the attention of responsible persons in and out of government. In next month's issue, ARMY magazine expects to examine the subject of air-and sea-lift as it affects the ability of this nation to deter Communist aggression.

Active army strength

The over-all manpower strength of the active Army is bound to have a profound influence on STRAC's combat potential. STRAC's four divisions simply cannot be kept at full strength and in full readiness under present and planned manpower levels unless other vital Army missions are curtailed.

In the Rotunda of the U. S. Capitol, General Charles L. Bolté, member of AUSA's Council of Trustees, presented the Association's wreath to the Unknown Servicemen of World War II and Korea. General Bolté was accompanied by your Executive Vice President, Secretary, and the following Chapter representatives:



- Mr. T. F. Nance and Mr. E. L. Massei, Jr.
Braxton Bragg Chapter
- Major Tom Huff
Central Texas-Fort Hood Chapter
- Col. Gordon C. Jones
Dix Chapter
- Major and Mrs. James G. Bennett
Fort Lee Chapter
- CWO Earl M. Szwabo
Fort Leonard Wood Chapter
- Mr. Henry Handler
George Washington Chapter
- Capt. Clarence W. Pratt
Kentuckiana Chapter
- Lt. Col. Charles I. Katz
New York Chapter
- Lt. Col. Henry J. Wolfs
Northeast Florida Chapter
- Mr. Samuel F. Downer
Pikes Peak Chapter
- Mr. W. J. Hamlin
Polk Chapter



In Hawaii, Maj. Gen. A. W. Stuart, CG, 25th Infantry Division, and SFC Ronald Colwell, museum custodian, inspect one of the colors which is housed in the Division's new and first museum. The museum will be a focal point of the history of the Tropic Lightning Division in war and peace.

But since it is unthinkable to reduce the Army's strength in Western Europe and the Far East (where it is certainly at minimum strength and may be below the danger line), and since all other Army activities are operating at minimum strength, it becomes apparent that AUSA's stand for a million-man active Army remains realistic. While Congress has not yet gone that far, it has sought to reverse the Administration's plan to cut the Army to 870,000 during the next fiscal year. Instead, the House of Representatives voted funds for a 900,000-man active Army in Fiscal Year 1959. This is 25,000 less than the 925,000 that Mr. Brucker and General Taylor have said the Army should have.

This 925,000-man force would be organized into 15 divisions, would provide additional missile commands for the Far East and Europe, would increase the number of combat and logistical support units, and would add some additional strength to STRAC divisions. It would not however, permit all four STRAC divisions to become combat-ready and to maintain themselves continuously in that state. At least part of STRAC would continue to receive new men for training in units destined to be gyroscoped to

divisions that are stationed overseas.

The AUSA goal of a million-man active Army may not be achieved in Fiscal 1959. But if Army strength can be built up to 925,000, the steady decline in strength that began in 1953 will have been halted and rebuilding begun.

Strength and modernization of reserve forces

Closely allied to the strength of the active Army is the strength of the Army Reserve and National Guard. And allied to the over-all strength of these components is the requirement of modernizing them and of reorganizing them into the Pentomic structure. This is clearly essential. As part of the U. S. Army, the Army Reserve and Army National Guard must be made compatible with the active Army.

In a speech before the Governors' conference at Miami late in May, General Taylor outlined a plan to accomplish this without reducing the number of National Guard and Army Reserve divisions. The plan has two key provisions: first, the 27 Army National Guard divisions and the 10 USAR divisions would be retained; second, in order to accomplish this goal, those divisions would be reorganized in Pentomic divisions of three battle groups each.

Thus, under the contemplated reorganization, no state would lose a division presently organized, but certain smaller Guard units, both in and out of the Guard divisional structure, might have to be eliminated in order to distribute personnel and equipment among the 27 retained three-battle-group Guard divisions.

A parallel reorganization is under consideration with regard to the Army Reserve.

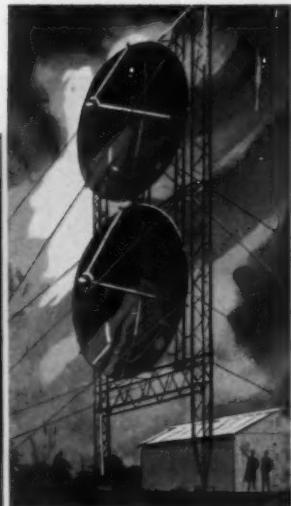
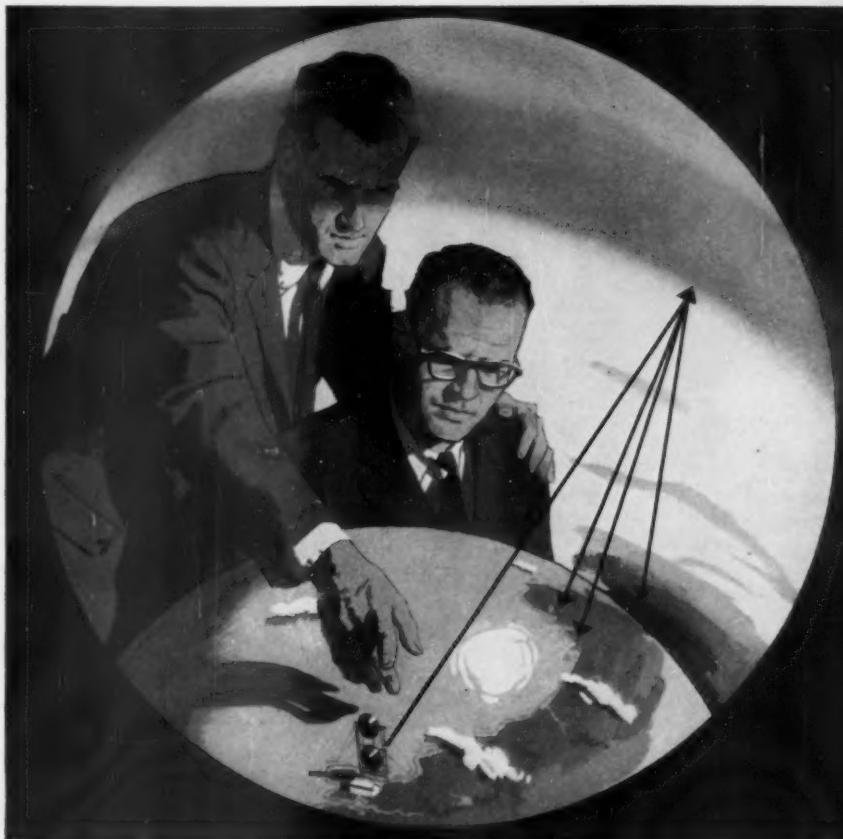
The Army, General Taylor said, feels that it can retain all its 37 Guard and USAR divisions, under conditions laid down by the Department of Defense, only by establishing firm priorities, both in personnel and equipment, consistent with the requirements of a planned mobilization schedule. The Joint Chiefs of Staff are currently examining all reserve units closely to

(Continued on page 66)

Pfc. Edward J. Slane (left), 306th M.P. Bn., and Lt. Col. Edgar B. Nichols (center), 1029th Army Reserve Unit, shot perfect rifle scores in the same event at First Army meet at Fort Dix, 3 May. Sgt. Ruben Rodriguez (right) finished only one point back.



BEAMING A MESSAGE FROM A PATCH OF SKY...



Typical 28 foot paraboloidal antennas as used in a Philco 8,000 mc forward scatter system with diversity.

Philco Pioneers a New Science of Super High-Frequency Microwave Communications

Philco, under the sponsorship of the Rome Air Development Center of the U. S. Air Force, is pioneering in the development of new electronic communications techniques . . . so reliable that transmission of messages is virtually unhampered by extremes of weather, vandalism or electronic jamming.

Called "tropospheric forward scatter", this new microwave system literally excites an umbrella of electrical turbulence in the earth's lower atmosphere. This phenomenon of the troposphere causes the sky to act as a transmitter when excited by a radio beam.

Super high frequency microwave signals (in the 8,000 megacycle range) are beamed at a spot in the troposphere then refracted back to earth in a "scatter" pattern and picked up by the receiving station hundreds of miles away.

Forward scatter enables high frequency signals to leap mountain ranges . . . span large bodies of water . . . even follow the earth's curvature beyond the horizon. This new technique enables the use of portable receiving equipment . . . a tremendous advantage for military tactical communications.

In an extreme National Emergency, tropospheric forward scatter could well become our only dependable communications medium.

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A LOOK AT THE ARMY'S COMBAT DEVELOPMENT EXPERIMENTATION CENTER

experimenting in tomorrow's army

JOHN B. SPORE

FORT ORD, CALIFORNIA

THE Army's Combat Development Experimentation Center (CDEC) here and at the nearby Hunter Liggett Military Reservation-Camp Roberts complex, is in essence a field laboratory that subjects ideas and concepts about future Army organization, tactics, weapons and equipment to searching inquiry. In doing this it welds together the professional soldier's realistic knowledge of battle with the scientist's method of isolating facts from out of a welter of unproven ideas and suppositions.

There has been some misunderstanding of what CDEC is and what it is trying to do. To gain an understanding of what it is, it is helpful to know what it is not. CDEC is neither a school, nor a proving ground, nor a test board, nor a research and development agency, nor a conductor of a "war game," nor a cloistered group of military and scientific eggheads evolving theories about the nature of future war on the ground. CDEC does have some superficial resemblances to some or all of these, but it isn't any of them.

The key word in its name is *experimentation*; CDEC's experiments in the field in "free" maneuvers involving "aggressor" and "blue" forces, the latter using different combinations of organizations, tactics, weapons, vehicles and equipment. Each field problem is repeated many times under as realistic conditions as possible and everything that occurs is exhaustively recorded and later analyzed during "playback" sessions which are attended by key field commanders as well as by members of the military staff and CDEC scientists.

In the words of Brigadier General Frederick W. Gibb, CDEC's commander since it began in 1956, CDEC is not attempting to predict the future, but to influence it by finding out what kind of combat organizations, using what kind of tactics and techniques, and furnished with the kind of arms and equipment that will make these organizations effective, can defeat any enemy on a battlefield of the future.

CDEC attempts at all times to free itself from any preconceptions based on past experience. An important aspect of this is that it isn't trying to devise a capability that will defeat a known capability or tactic of an enemy, but instead is seeking to develop methods by which any enemy can be influenced in ways that will insure his defeat.

CDEC works within the general framework of Department of Army studies on the nature of the battlefield of the future. As phrased by Colonel James C. Taylor, CDEC's Special Projects Officer, "the atomic battlefield of the future will have much greater breadth and depth than battlefields of the past. Combat action will be characterized by fluidity, with rapid concentration of widely dispersed forces, followed by equally rapid dispersion."

As Colonel Taylor sees it, "more and more as time and technology advance, tactical operations must consist of the coordinated efforts of small, powerful, self-contained units with vastly increased ground and air mobility. These units will have to be capable of operating over extended distances with

a minimum of control by higher headquarters, and constantly prepared for all-around combat. Areas which are vital must be fought for and held as in the past; the resulting battle may be characterized by many violent clashes of relatively short duration.

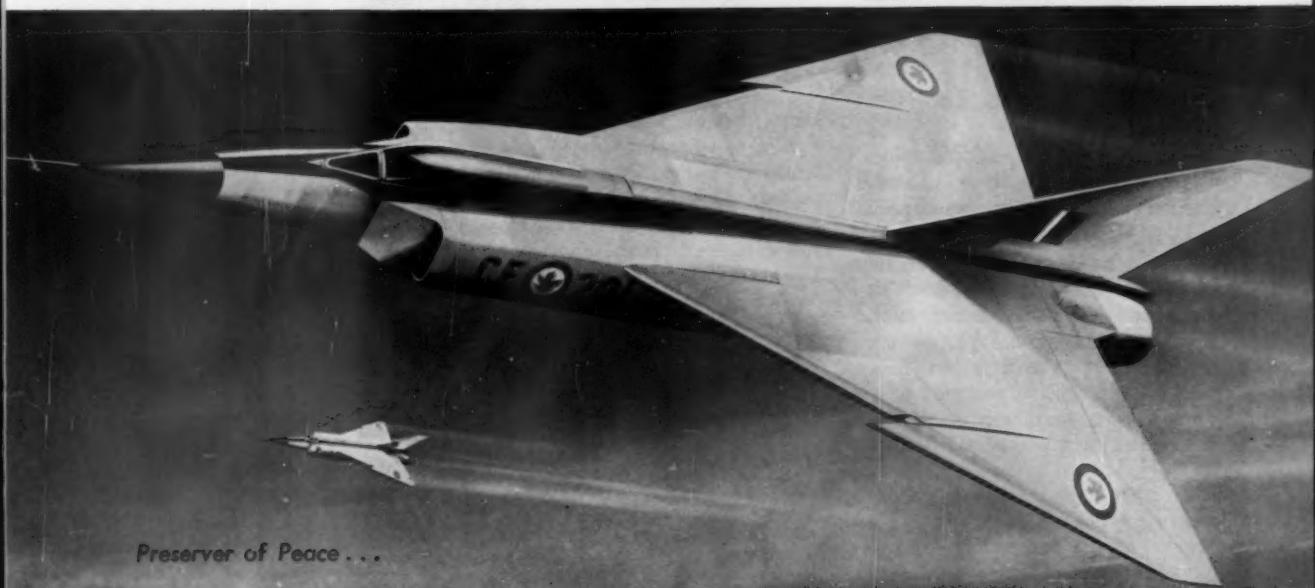
"The problem of the ground commander," Colonel Taylor continues,



BRIG. GEN. FREDERICK W. GIBB
CG, Combat Development Experimentation Center

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control system. While an enemy plane is still beyond the range of human eye, this radar system will detect it, and provide the intercepting pilot with a continuous flow of information, electronically computed in terms of position, range and rate of closing. Associated with RCA in the project are the Minneapolis-Honeywell Regulator Company and several Canadian firms.



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"will be to find the enemy, to determine his configuration and fix him, or so influence him by firepower or movement, that we force him into a position where we can destroy him by atomic fire."

While developing this capability of fighting an atomic war, the Army must also have the capability of fighting a non-atomic war. This either-or capability is a requirement that must be considered in all of CDEC's experiments.

SINCE CDEC experiments in the future and not the present, it must project itself forward in time and seek answers to such questions as these:

What kind of military organizations will be necessary in 1965-70? In 1970-75?

What kind of tactics should these organizations use?

What kind of weapons and vehicles and communications will be needed to make these tactics effective?

In addition to such broad questions, CDEC also seeks to obtain information on specific questions posed by higher authority. One such question is that hardy perennial: should company commanders be captains or majors? In setting up experiments designed to get valid answers to this question, CDEC found that the question had been put wrongly. As CDEC rephrased it, it reads: How much experience and schooling will be required of the company commander of the future? The answers CDEC gets (the experiments are presently under way) will make it possible for the Department of the Army to decide whether the level of military maturity required of company commanders is properly that of a captain or a major, taking into consideration the Army's career program and promotion policies.

In its experiments CDEC is working from the bottom up; that is, from the platoon and the company. It believes that when it can get some valid answers to the problems of small units in future battle, it will be able to move up the scale into the problems of battle groups, divisions and corps.

CDEC's use of scientists is extremely interesting. In the first place it makes little difference to CDEC what specialty its scientists are trained in. The Director of CDEC's research office, Dr. Ian W. Tervet, is a biologist. All the other scientists on the research staff are from the other physical sci-

ences, except for one who happens to be a psychologist. Dr. Tervet explains it this way: "The CDEC mission is not physics, nor chemistry, nor any of the established areas of science. But the CDEC mission involves experimentation and it is here that the scientist fits. What the scientist does at CDEC is to apply the methods of science to the military problems of organization, operations and so on. Thus the scientist at CDEC does not usually function as a practitioner of his specialized field. He is an applied scientist who attempts to integrate the general experimental methodologies of science into the field of simulated combat."

CDEC scientists are involved in all phases of experimentation from planning to evaluation and final report writing. At all times the scientists seek to insure that the work being done will reap a significant result in scientific terms. Each field experiment is conducted by a joint project team consisting of officers from the CDEC staff and scientists from the research office. The team chief may be either an officer or a scientist, depending upon the nature of the project. At the present time there are twenty-three scientists working with CDEC.

CDEC's experimentation troops come from the 10th Infantry Battle Group at Fort Ord. For the conduct of experiments it has an authorized strength of 3,049 that includes an artillery battalion, a company of armor and one of engineers, and two separate platoons, one signal and the other ordnance. This outfit provides both Blue and Aggressor forces and also handles and maintains the large amount of equip-

ment needed to conduct the tests. For example, the mortar battery of the battle group furnishes the drivers for the 100-plus armored personnel carriers CDEC uses in its experiments. The artillery battalion furnishes the umpires for the experimental engagements between the forces.

One of the psychological difficulties CDEC has is that the vehicles and weapons it envisages presently don't exist and thus it must use one kind of vehicle or weapon to simulate another. Twenty-ton personnel carriers are used for an eight-ton vehicle and helicopters fill in as flying platforms.

There is also the problem of retraining men in new and unusual ways of doing things. Coupled to this is the necessity of writing and publishing training literature based on the experiments. The commander of the experimentation troops reports that it is necessary to train leaders in techniques at least one level above that normally associated with the position. Thus a squad leader must be able to serve as a platoon sergeant or even to lead a platoon.

SINCE CDEC is an agency of the Continental Army Command, General Gibb reports to the Commanding General of CONARC. His immediate and most pressing task is to conduct experiments designed to enable him to recommend to CONARC and through that headquarters to the Department of the Army, the basic organization, tactics, equipment and weapons for use by the Army in the 1965-1970 period. Target date for these recommendations is 30 June 1961, three years hence. Since CDEC has been in operation about two years, this means that in a five-year period a small group of fifty-three officers and 23 scientists (these figures do not include the experimentation troops), spending about a million dollars a year on purely experimental work (about five million dollars if the cost of the experimentation troops is included), expects to outline a realistic pattern for the Army to follow in the five-year period beginning in 1965. And at the same time CDEC is pursuing long-range projects for the 1970-75 period. If this program seems ambitious, it is worth noting that higher authority thinks progress to date is worthwhile. Early in June Secretary Brucker announced that CDEC was to be a permanent facility, thus giving a green light to its plans and programs.



DR. IAN W. TERVET
Director, Research Office, Experimentation Center

HUGHES BUILDS FIRST FUNCTIONAL TWO-PLACE HELICOPTER

The Hughes 269-A

...the first easily maintainable, reliable, high performance, low cost two-place helicopter. With new engineering from top to bottom, the 269-A is designed to add new mobility to Army observation, and liaison on the company level—and at practical cost.

Easily Maintainable

Necessity for maintenance has been reduced to a minimum. The three fully

articulated all metal main rotor blades are unusually simple and are interchangeable without tracking. The multiple belt-type clutch has long life, is fail-safe and easily removable. The horizontally mounted engine is separately removable without special equipment.

Low Cost

Production engineered to provide low cost, the Hughes Model 269-A for the first time makes available a helicopter with power plant, rotor system, and structure components specifically tailored for the two-place mission.

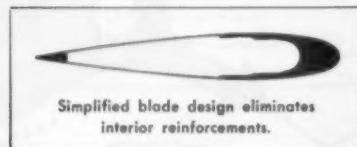
Excellent Performance

With its thoroughly proved 180 h.p. Lycoming 0-360 engine, the 269-A can

fly at a speed of 90 m.p.h. and has a cruising range of 150 miles. It has a useful load of 660 pounds and an empty weight of 890 pounds. Control system loads are light and no boosters are needed. Over a hundred autorotational landings have been made with the prototype. Hovering out of ground effect at 1750 pounds gross weight was demonstrated.

269-A Helicopter

This new two-place helicopter (shown below) also features a three-bladed rotor, resulting in a smaller disc which facilitates landing, parking and concealment. For further information or complete technical details on the Hughes 269-A Helicopter write:



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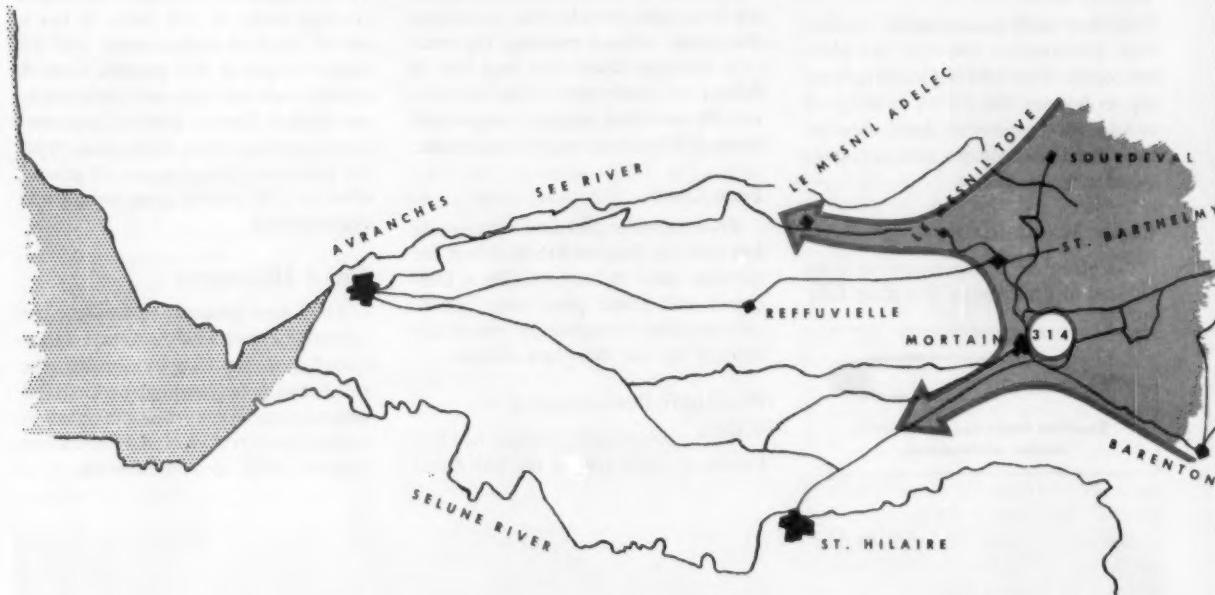


ENGINEERS qualified in the helicopter field are invited to send applications to:
Director of Engineering, Hughes Tool Company,
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HEROISM IS NEVER OUT OF DATE

The Mortain Counterattack:

CAPTAIN MARTIN BLUMENSON



This was Mortain after the 120th Infantry and supporting artillery had finished with it



IN THIS AGE of atomic weapons and missiles, World War II seems so remote as to belong to a distant epoch, and many soldiers appear to have relegated that experience to oblivion. What can we learn, they say, from outmoded forms of warfare?

The answer is simple. Heroism is never out of date.

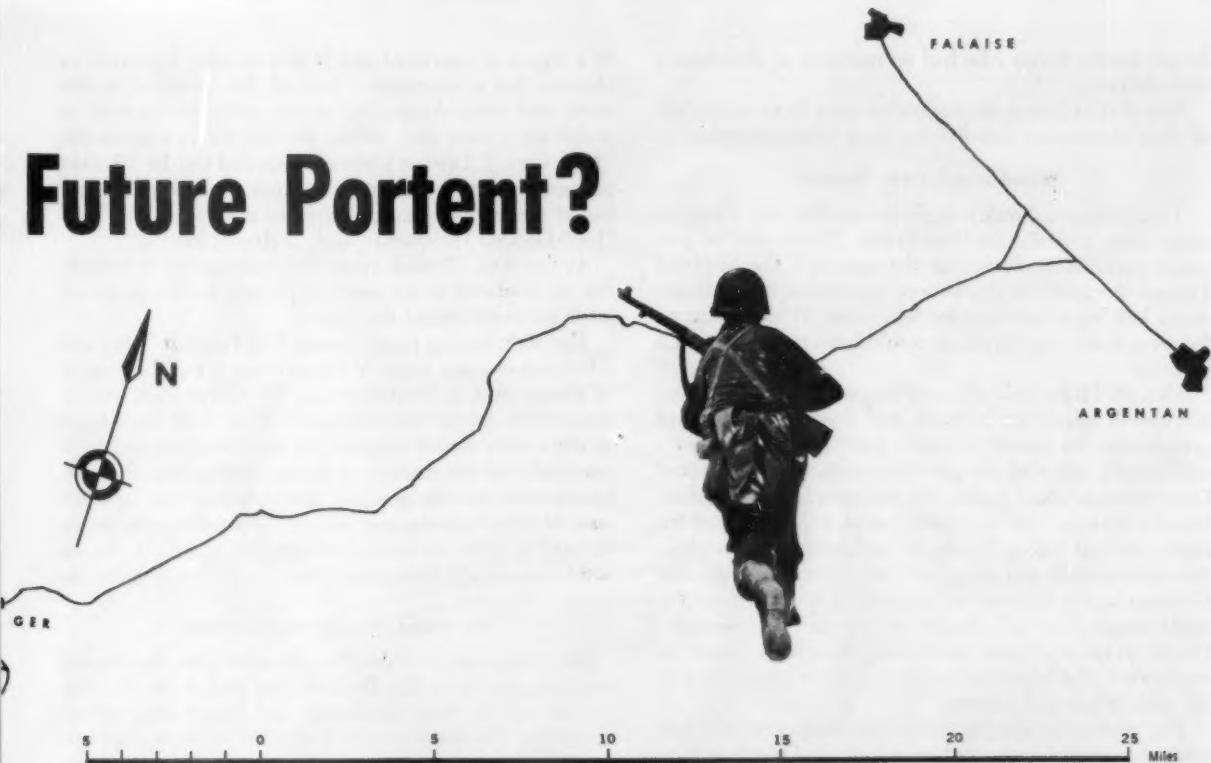
In repelling at Mortain the first large-scale German counterattack launched after the Allied invasion of Normandy, two months to the day, brave men, though outnumbered, stood and outfought an enemy who had surrounded part of them, who threatened to isolate the rest of them, and who almost destroyed them all.

Confused fighting at close range, infiltration and counter-infiltration, action by small, dispersed groups operating in a battle area rather than along established front lines, the story is not unlike the combat envisioned for the future.

How the American commanders reacted is a story of courage, of the unabashed assumption of risks, and of confidence in the ability of the American fighting man—in short, an inspiring example of command.

And for those who are curious about "the other side of the hill," it may be of interest to learn of an attack that in its essentials was the prototype of the Ardennes counter-

Future Portent?



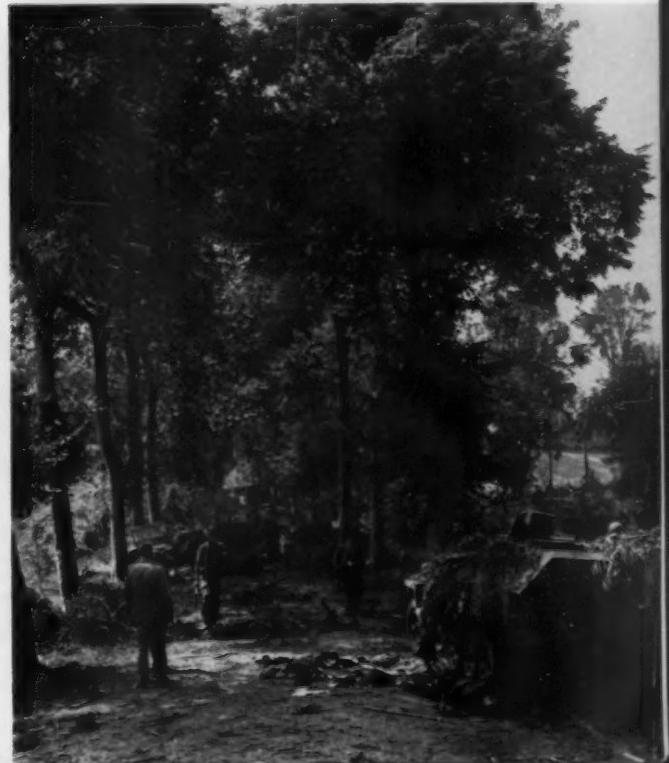
On the road northwest of Mortain, a tank destroyer outfit inflicted heavy loss on German armor

offensive launched by Hitler's forces four months later.

The German situation on 1 August 1944 was desperate. General Bradley had parlayed his American troops from a limited breakthrough operation into a wide-open, fast-moving end run that outflanked the German defensive lines in Normandy for a distance of thirty miles. From Avranches, Patton's Third Army swung south and west into Brittany while First Army (Lt. Gen. C. H. Hodges) pivoted eastward on the first stage of a projected advance toward the Seine.

Two days later the disintegration of the German left was so apparent that Brittany was dismissed as worth only "a minimum of forces," and part of Patton's army joined Hodges in the swing toward the Seine. By sweeping to the Seine River, where all the bridges (except at Paris) had been destroyed by air bombardment, the Americans, British, and Canadians hoped to push the Germans back against the lower reaches of the river and destroy them.

As General Montgomery, the Allied ground force commander, judged the situation, "the only hope" the Germans had of saving their two field armies in Normandy was by making a "staged withdrawal to the Seine." On this basis, he saw his mission as the need to transform their retreat into a rout. These were his orders. But while Patton's forces raced through lightly defended territory in the German rear, First Army and the British and Canadians



fought enemy troops who had no intention of abandoning their defenses.

Part of the German determination came from an analysis of their alternatives that differed from Montgomery's.

Withdrawal from France

The American breakthrough meant that the Germans might have to withdraw from France. There were no prepared positions in France in the rear, and the Siegfried Line or Westwall on the western approaches to the Rhine River had been neglected for four years. With France no longer a buffer, the Germans would have to fight on their own soil.

Though Hitler ordered work begun on defensive lines and the Westwall rehabilitated, and though he quickened preparations for raising a reserve force within Germany—and thereby admitted the possible necessity of withdrawal from Normandy and France—he was reluctant to withdraw because it meant the inevitable loss of a great part of his combat-trained forces. Troops in withdrawal always abandoned equipment and straggled, and, what was worse, the Germans lacked not only the mobility of the Allied mechanized armies but also control of the air. To surrender France, to lose the missile bases along the Channel coast, to withdraw to the homeland might signify the beginning of the end, defeat and disaster.

The alternative was to restore the conditions that had made possible the static warfare of June and much of July. If a continuous defensive line could be reestablished in Normandy, the shortest conceivable line in western Europe, the Germans might yet hold. To attain this goal, the Germans had to close the breach on their left. They had to recapture Avranches. A counterattack was in order, a thrust toward Avranches through Mortain.

The German field commander, Field Marshal Kluge, began to assemble an armored force east of Mortain for this purpose. XLVII Panzer Corps, directing the 2d SS, 2d and 116th Panzer Divisions in an initial effort and the 1st SS Panzer Division in exploitation, was to attack to the west after dark on 6 August without artillery preparation and seize and secure Avranches.

Into the path of this scheduled effort and on the very day the attack was to start came the U. S. 30th Infantry Division (Maj. Gen. L. S. Hobbs).

A few days of rest

The 30th Division had been in the line for a month. It had fought in the hedgerows, made possible the capture of St. Lô, participated in the breakthrough operation, and fought a particularly hard battle at Tessy-sur-Vire. To give the division a few days rest, General Hodges moved it to a place he thought would be relatively quiet—Mortain.

Three days earlier, the 1st Infantry Division (Maj. Gen. C. R. Huebner) had taken Mortain, a village at the foot of a rocky hill just to the east, Hill 314 (or 317). From this height

Captain Martin Blumenson, USAR, an occasional contributor, wrote *Breakout and Pursuit* (the account of the battle of France), a forthcoming volume in the Army's official history of World War II. He earned a Master's degree at Harvard, and was Historical Officer for Third and Seventh Armies and later for ETO during the Second World War. He is now on duty in the Office of the Chief of Military History.

in a region of convulsed and broken wooded highland, an observer has a magnificent view of flat tableland to the south and west. Avranches, twenty miles to the west, is visible on a clear day. When the VII Corps commander (Maj. Gen. J. Lawton Collins) inspected the 1st Division positions around Mortain, he pointed to the high ground east of the town and said, "Ralph, be sure to get Hill 314." "Joe," General Huebner replied, "I already have it."

As the 30th Division came into Mortain on 6 August, the 1st displaced to the south to prepare for the projected move eastward toward the Seine.

The 30th, having fought under XIX Corps at Tessy and scheduled to come under V Corps control, was, because of its abrupt shift to Mortain in the VII Corps zone, unable to complete proper reconnaissance. With little knowledge of the terrain and of neighboring unit locations and with practically no information of enemy dispositions, the 30th hastily took over the positions established by the 1st Division. Shallow foxholes and field artillery emplacements far forward in offensive formation were hardly suitable for an outfit soon to be fighting for its life in a defensive situation.

No maps, no communications

Maps were not available; for the most part, troops used the crumpled maps Big Redmen had pulled out of their pockets and off their map boards and passed along before departing. The telephone wire nets left in place were unfamiliar. The 30th had no time to tie its positions together before the Germans struck.

Nor was the division at full strength. Almost eight hundred replacements who had joined a few days earlier did not completely fill the thinned ranks; they were not yet fully assimilated into the depleted units. Two infantry battalions were absent, one attached to an armored division, another dispatched to Barenton, where it was soon to be isolated for a day.

Tired because of the preceding month of combat, fatigued by the road march from Tessy to Mortain that day, manning unfamiliar positions in unfamiliar terrain, the 30th Division troops were hardly in the best condition to meet the German counterattack.

General Hobbs assumed responsibility for the Mortain area at 2000 on 6 August, four hours before the German attack began.

Though well conceived, the German attack was faulty. Kluge had misgivings, and as late as the day of attack he was tinkering with the plans. He tried in vain to find additional units for commitment. He wondered whether his attack front ought to be broadened. He talked of changing the axis of advance.

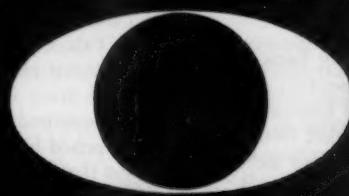
He had reason to be apprehensive, for American pressure on the German line north and northeast of Mortain and American mobile forces slashing deeply into his left flank and rear were coming close to nullifying the conditions necessary for the attack. American occupation of Mortain was a serious setback threatening assembly areas. American capture of Laval on 6 August endangered important supply bases near Alençon and Le Mans. And American advances toward high ground northeast of Mortain menaced lines of departure for the attack.

In order to regain operational initiative before additional developments further complicated the jump-off, Kluge had to launch his attack on schedule. But on that day, just a few hours before the attack, Hitler interfered.

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Hitler made available to Kluge sixty Panther tanks still held in reserve east of Paris, and released eighty Mark IV tanks of a panzer division moving toward Normandy from southern France. He also wanted Eberbach, commander of Fifth Panzer Army (in Normandy), to lead the attack instead of Funck, commander of XLVII Panzer Corps.

It became obvious that Hitler and Kluge were not thinking of the same kind of operation. While Kluge hoped only to regain Avranches and restore the defensive line, Hitler was thinking of a big offensive to be launched by several corps under Eberbach, a defensive blow that would sever the Allied front, throw the Allied armies into confusion, and eventually push them back into the sea.

To cater to Hitler's grandiose delusion meant postponing the attack and awaiting the arrival of the armored reinforcements. Uncertain that the German defenses on the left flank could hold much longer and fearing that the Allies would capture his assemblies or bomb them out of existence, Kluge persuaded Hitler to let the attack go as planned.

Composition of the attack

There was a good possibility of success. The first wave of the attack was to be composed of three armored divisions in six columns, and a fourth armored division was to be ready to exploit initial success and capture Avranches. Between 120 and 190 German tanks were to operate in a zone where only the 30th Division and an armored division's combat command (the latter assembled between Mortain and Avranches) were located.

But German assembly had been made in great haste, at night, and with great difficulty due to almost constant pressure by American forces. In some instances German units had to fight their way to assembly points while in danger of being encircled. No distinct line of departure was possible. Many units had taken heavy losses before the attack started.

Two hours before midnight, when the attack was supposed to begin, Funck telephoned to request a twenty-four-hour delay. He had two reasons.

First, the 1st SS Panzer Division (the exploiting force) was not going to be able to reach its assigned position in time; nor would it be able to detach an armored battalion to the 2d Panzer Division in time, because its relief from the Fifth Panzer Army front had been slower than expected, traffic congestion and Allied air attacks had harassed the approach march, and an Allied fighter-bomber had crashed on the lead tank of the heavy-tank battalion while it was moving through a defile in close formation and had thereby blocked the entire column.

Panzer commander balks

Second, the 116th Panzer Division had not detached a tank battalion to the 2d Panzer Division as directed, through sheer perversity on the part of the division commander. This was not the first (nor would it be the last) time he had failed to comply with orders.

The only concession to Funck's request was postponement of the jump-off until midnight.

Shortly thereafter, the 2d SS Panzer Division (on the left) attacked in two columns, encircled Mortain, overran and captured the village, and advanced toward high ground west of Mortain and to the southwest toward St. Hilaire. There was no significant American opposition, and by noon of 7 August German troops seemed on the way to St.

Hilaire where they could threaten Avranches directly. One thing interfered: a battalion of 30th Division infantrymen, surrounded but still holding out on Hill 314, called such devastating artillery fire down on the panzer division that the Germans were unable to advance after daylight.

The 2d Panzer Division, making the main effort in the center, got off only one column. Without the tank battalion of the 116th, the troops moved off, achieved surprise, and rolled through the 30th Division line for six miles. The refusal of American troops to panic and the effect of American artillery fire on their flanks (particularly from the 4th Infantry Division under Maj. Gen. Raymond O. Barton) brought the Germans to a halt at dawn.

By this time, the other column, after having waited for the panzer battalion of the 1st SS to join, jumped off and made a similar advance until similarly stopped.

In midmorning, Funck committed part of the 1st SS Panzer Division through the 2d Panzer Division. A restricted roadnet, limited maneuver room, and American resistance on the ground and in the air balked progress. With German tank losses skyrocketing, Funck halted the attack and ordered the troops to dig in. They had already done so.

As for the 116th Panzer Division, it did not attack at all. The division commander felt he had enough to do to prevent encirclement by troops of First Army, so he continued to fight a defensive battle. He was relieved during the afternoon of 7 August. The division launched a half-hearted attack that evening and got nowhere.

Instead of a coordinated massed attack, only three of six assault columns had jumped off on time; one additional column and the exploiting force joined later. The Germans achieved surprise and made a sizable penetration through the American line. Yet it was obvious to Kluge and to other commanders that the attack had failed. Withdrawal seemed in order.

Hitler gave no choice. He commanded that "the attack be prosecuted daringly and recklessly to the sea."

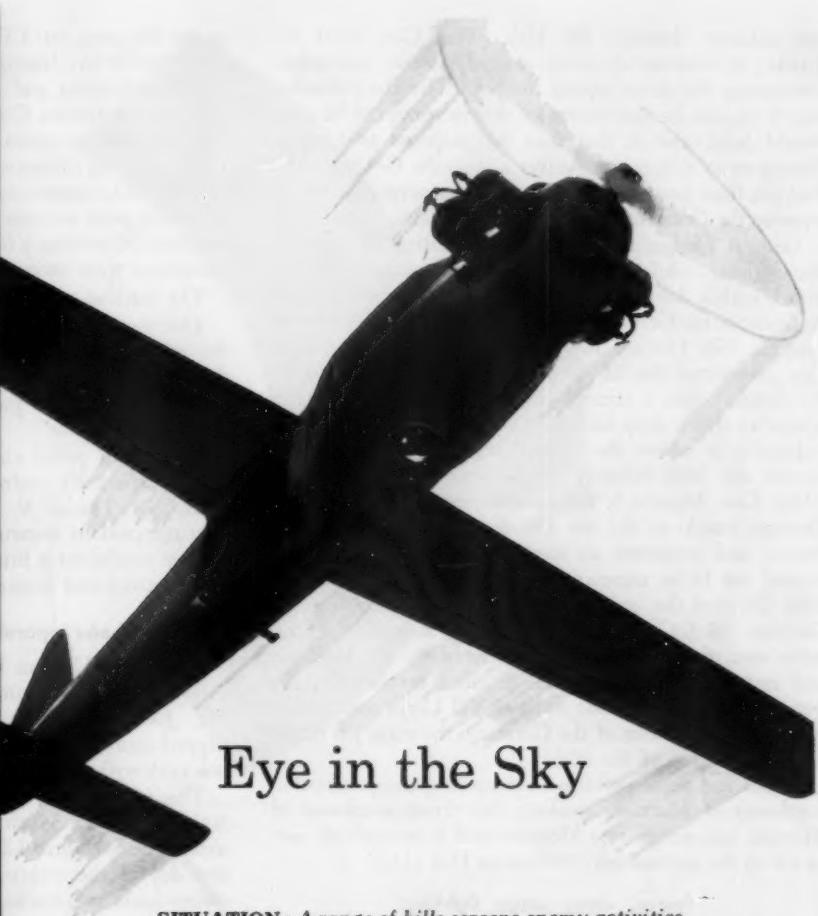
Under this mandate, Kluge pulled two armored divisions out of the Falaise sector and moved them toward Mortain for an additional effort toward Avranches. Until they assembled and were ready to attack (actually they never did), the committed elements at Mortain had to hold the positions reached by the forward elements. To assist them in an effort that had suddenly changed from offense to defense, Kluge on the evening of 7 August sent the remainder of the 1st Panzer Division into the line.

A hard row for the 30th

The result pitted the 30th Division against three armored divisions (the 116th was not in the 30th's sector), two of them SS divisions. Five battalions of German infantry, four of artillery, and two or three of tanks were behind the lines occupied by the 30th on the previous day.

Not only was the 30th threatened with destruction, but the Germans were threatening to cut the narrow Avranches corridor through which flowed American troops, equipment, and supplies to nourish the drives westward into Brittany and eastward toward the Seine. German success would separate First and Third Armies and perhaps make the latter vulnerable to defeat in detail.

American commanders recovered quickly from the initial shock and reacted with an offensive intention rather than a defensive attitude. General Bradley made available only



Eye in the Sky

SITUATION: *A range of hills screens enemy activities.*

TACTICAL PROBLEM: *What is on the other side of the hills?*

SOLUTION: *Aerial drone surveillance — puts an "eye" in the sky.*

Radioplane, in conjunction with the U.S. Army Signal Corps, developed and is producing the SD-1 surveillance drone system. Highly mobile, the camera-carrying SD-1 may be zero-length ground launched in rough terrain from a camouflaged position and flown by remote control over enemy installations on photo reconnaissance missions. After the drone's camera has exposed its film by radio command over the target, the SD-1 is then flown to a pre-designated area for parachute recovery. The camera is removed, the film is processed, and prints are delivered to the requesting unit within minutes after the entire operation began and the mission is accomplished without risking a pilot's life or a large man-carrying aircraft.

The Signal Corps SD-1 surveillance drone system is another example of Radioplane's constant refinement of the art of producing radio-controlled drones. First to manufacture target drones exclusively for military use Radioplane has a world-wide field support organization with personnel qualified to assist in all phases of drone field activities.



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one infantry division, the 35th (Maj. Gen. Paul W. Baade), to reinforce the troops around Mortain, meanwhile continuing the drive toward the Seine. By the following day, 8 August, he was convinced that the troops at Mortain would hold, and at that time he proposed to General Montgomery a daring maneuver to trap the Germans who had put their heads into a noose, the maneuver that was to squeeze the Germans at Argentan and Falaise.

General Hodges kept First Army exerting pressure on the Germans, while General Collins, localizing the counter-attack within the confines of his VII Corps sector, set out to eradicate the German threat by an attack of his own. He sent the 35th Division into the breach southwest of Mortain, committed the 2d Armored Division (Maj. Gen. E. H. Brooks), less a combat command, at Barenton for a spear-like thrust deep into the German left flank (and incidentally to relieve the isolated troops at Barenton), attached the 39th Infantry of the 9th Infantry Division (Maj. Gen. Manton S. Eddy)—caught in the wake of the German attack—to the 4th Division, which had been in reserve and remained so, alert for commitment (which turned out to be unnecessary). He also attached to the 30th Division the combat command of the 3d Armored Division (Maj. Gen. Leroy H. Watson) assembled several miles west of Mortain and a regiment of the 4th Division, and instructed General Hobbs to clean up the German penetration. While all the units of VII Corps contributed to the eventual defeat of the Germans, the main job rested on the shoulders of the 30th.

Hobbs had three problems: eliminating the penetration northwest of Mortain, blocking the thrust southwest of Mortain, and recapturing Mortain itself to re-establish contact with the surrounded battalion on Hill 314.

Fierce, close-range fighting

It took five days to do the job. During that period the action was small-unit combat, fierce close-range fighting by splinter groups maneuvering to outflank and in turn being outflanked, "a seesawing activity consisting of minor penetrations by both sides," operations characterized by ambush and surprise and fought on the level of the individual soldier.

"What does it look like down there?" the division G3 asked a regimental officer.

"Looks like hell," came the reply. "We are just mingled

in one big mess, our CP is getting all kinds of fire, enemy tanks within five hundred yards of us."

Disorganization and isolation of small units were the most serious factors. Communication throughout the division area was precarious; wires had been cut or shot out, and infiltrating Germans and raiding parties menaced messengers and command posts. Several infantry battalion command posts and one regimental headquarters were surrounded. More than a few battalions were isolated. Several companies were overrun.

The reaction to this situation? The troops fought.

Threatened by German tanks four hundred yards away, the regimental commander of the 117th Infantry decided that moving his headquarters might have an adverse effect on morale; he stayed put and directed the battle although virtually encircled.

A five-man patrol checking outpost defenses suddenly and unexpectedly confronted about fifty Germans. While Tech. Sgt. Harold V. Sterling engaged the enemy, his four companions maneuvered to positions of safety. Then all five conducted a fire fight for an hour until reinforcement arrived and dispersed the Germans.

Phone operator "doubles in brass"

When two German tanks worked their way to within 250 yards of the regimental CP of the 120th Infantry, Pfc. Joe O. Shipley, telephone switchboard operator, slipped away from his duties long enough to knock out one tank with a bazooka and drive the other away.

The 823d Tank Destroyer Battalion, attached to the 30th, lost eleven 3-inch guns and prime movers, had thirteen wounded, three killed, and ninety-one missing in the first day of the counterattack; but it destroyed fourteen enemy tanks, two trucks, three tracked vehicles, a half-track, two motorcycles, a staff car, and a machine-gun crew.

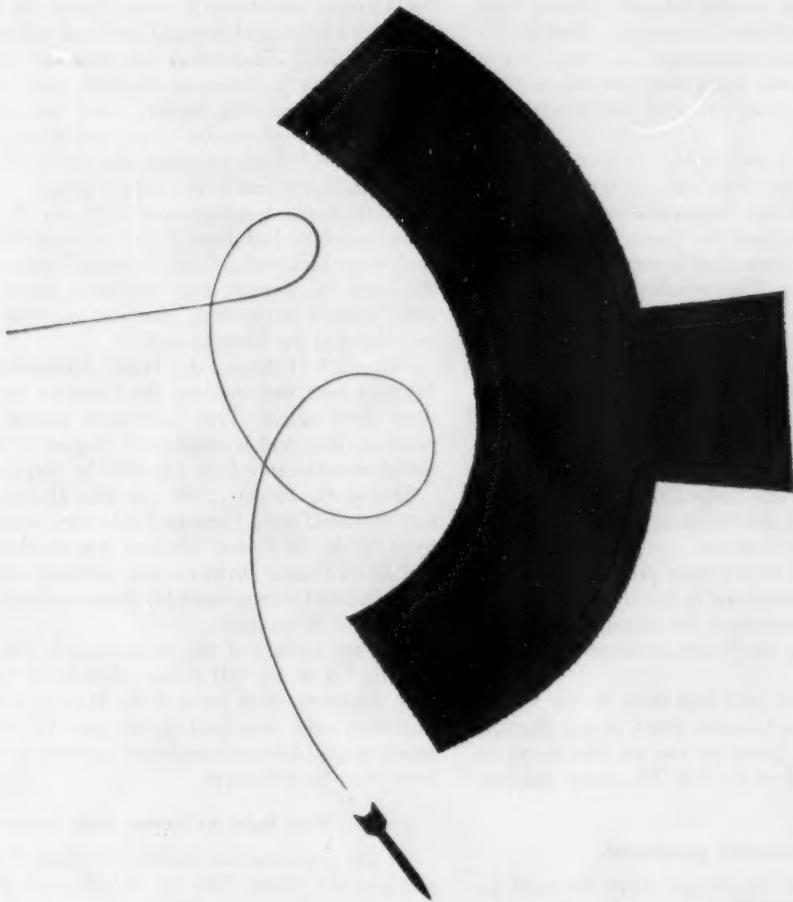
A company roadblock eliminated very early in the attack by tanks moved back several hedgerows and set up another block even though its antitank guns had been lost. Bazookas proved effective.

A battalion overrun and pushed out of its defensive line established another line several hundred yards to the rear, and, though tanks were swarming over the area, defended along a sunken road, clerks, cooks and messengers fighting alongside the riflemen.



These men of Company H, 120th Infantry, withstood six days of attack.

Cpl. David C. Rose, Lt. Robert S. Warnich, Staff Sgts. Robert W. Wilson, Joseph C. Wathen, and Robert E. Neahr



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Troops manning 81mm mortars refused to move from their original positions and fired at ranges as close as 175 yards. An artillery battalion started firing at a range of five thousand yards and was soon firing at targets only a thousand yards away, but the crews remained and continued to put out the shells.

This was the pattern of the battle. A typical message: "Very fatigued, supply problems not solved, defensive sector penetrated, however key terrain feature still held."

While the infantryman stood his ground, American artillery operated on the premise that it was better to waste shells than miss a target. The weather was clear, and while observation planes pinpointed German formations for the artillery, fighter-bombers roamed the area and destroyed enemy matériel and morale. Much of the reason why artillery and air were so effective came from the fact that the soldier on the ground had immobilized the German striking force and turned them into sitting ducks.

Of the seventy enemy tanks estimated in the original penetration, only thirty were judged in operation at the close of the first day. By the morning of 8 August, the estimate had dropped to twenty-five.

As Americans around Mortain were proving their courage and stamina, other Americans in battalion strength on top of Hill 314 were demonstrating the meaning of heroism in one of the outstanding small-unit achievements of the European campaign.

The battalion command post had been in the village of Mortain, and when the German attack surged through the town, the command group set out on foot to try to join their troops marooned on the hill. The group was captured soon after daybreak.

German movement paralyzed

On the height east of the village, Capt. Reynold C. Erichson assumed command of the surrounded force: the 2d Battalion, 120th Infantry, reinforced by a rifle company and a few antitank guns, and two forward observers of the 230th Field Artillery Battalion (1st Lt. Charles A. Bartz and 2d Lt. Robert L. Weiss).

The battalion had split a rifle company three ways to establish roadblocks augmented by antitank guns. Two roadblocks were overrun at once. The third remained in place and in action and eventually accounted for the impressive score of more than forty of the enemy's vehicles and tanks.

Occupying the most important piece of terrain in the Mortain area, the battalion held the crest of the hill for five days and denied the Germans possession of the ground that would have given them observation over the major part of the VII Corps sector. The Germans knew this, and the regiment-size 17th SS Panzer Grenadier Division, which had the mission of taking the hill, attacked almost constantly. American troops not only retained their positions but called down fire on all German units within observation. Like Erichson, the company commanders (Capt. Delmont K. Byrn and 1st Lts. Ralph A. Kerley, Joseph C. Reaser, and Ronald E. Woody, Jr.) refused to consider surrender.

Their isolation did not panic the troops. "Not worried about situation as long as [friendly] artillery fire continues," they reported. It was their stocks of supply that bothered them. And even this problem was partially solved. A light artillery plane tried to drop supplies by parachute,

but German fire drove it away. Army Air Forces cargo planes did better and dropped food and ammunition.

The 230th Field Artillery Battalion also brightened the supply picture by firing smoke-shell cases, normally employed for propaganda leaflets, filled with bandages, adhesive tape, morphine, and other medical supplies. Eventually, the 743d Tank Battalion and the 113th Field Artillery Battalion joined in this supply shoot.

Nearly seven hundred men held out. By 12 August, three hundred had been killed or wounded, but more than three hundred walked off the hill unharmed. During the battle of Mortain, they had been, the Germans later said, "a thorn in the flesh" that had paralyzed all German movement in the Mortain area.

Not until 11 August did Hitler acknowledge defeat at Mortain, and that evening the Germans began to withdraw their salient. They had never pushed beyond the positions they had reached on 7 August by virtue of the initial momentum achieved mainly by surprise.

During the six-day battle, the 30th Division lost nearly two thousand men. German losses were worse. One regiment of the 2d Panzer Division was annihilated, the 1st and 2d SS Panzer Divisions were seriously depleted. Nearly a hundred German tanks lay abandoned around Mortain at the close of the battle.

The main effect of the counterattack was that it temporarily halted the VII Corps advance. It had prompted some readjustment of forces in the Mortain-Avranches area, but of no more than local significance. What the counterattack might have accomplished seemed in retrospect to have been its only merit.

Men fight no better than leaders

"It was precarious for a while," General Hobbs reported to General Collins. "We are holding and are getting in better shape all the time."

Collins was not surprised. He had gone along on the assumption that no position is untenable when it is defended by men of courage and determination.

Taken by surprise and manning unfamiliar positions, the 30th Division stood its ground and fought as hard as any unit was to fight in the European Theater. "It isn't very easy," a staff officer wrote, "to tell the man in the front lines that the battle is going well when he's still up against that old combination of machine guns, burp guns, mortars, 88s, artillery, tanks—and terrain. . . . But the battle is going well; and it's worth saying."

The battle had indeed gone well. By blunting Hitler's Avranches counterattack and holding a considerable force tied down at Mortain, American troops made it possible for the Allies in Normandy not only to fashion the Argentan-Falaise pocket, where two German field armies were soon to be destroyed, but also to drive to the Seine. But more, the German withdrawal from Mortain was the start of a retrograde movement that was to end a month later at the Westwall fortifications along the German border, more than three hundred miles away.

Portent of the future? Small units, disorganized, separated, and isolated by surprise attack, can fight and can win against superior numbers despite precarious communications and supply and despite the absence of a well-defined front line. The key factor is superior leadership, for men fight no better than their leaders. The determining factor in the final analysis—plain old-fashioned guts.



Helping Hand for the Navy's Air Arm — Kaman HU2K-1

The most delicate job in the free world is entrusted to the men of the United States Navy. They must demonstrate to those who would extend the iron curtain that we have not mothballed preparedness. They must also teach the kids in the shadow of the iron curtain that fists clenched in defiance can also hold a baseball. Much of this assignment falls to Naval Aviation which maintains an endless global vigil, yet stands ready to rescue and evacuate injured. On these important missions Kaman utility helicopters extend a helping hand to the Navy's Air Arm.

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JULY, 1958

To March, to Shoot and to

MAJOR JAMES V. CHRISTY

AMBITIONOUS warriors have been searching for the "ultimate weapon" from the time the first cave dweller decided to lay in a supply of rocks as protection against unfriendly visitors. The true Great Captains of all ages have known, however, that so long as wars are made by men the only "ultimate weapon" is the fighting man himself. The real answer to the problem of waging war successfully is the application of all available force by resourceful soldiers on the field of battle. Weapons are merely the tools of the trade.

In this age of mechanization every phase of modern life is dependent on machinery. We even use electronic brains to think for us. Some of us seem to favor this trend toward mechanization for its own sake rather than for the results it will produce in battle.

I see some danger in this. A specific example is the M48 medium tank. This tank is equipped with a 90mm high-velocity gun which fires a projectile through a very flat trajectory. In traveling a distance of 5,000 yards this projectile rises scarcely more than the height of an average man at the highest point in its arc of flight. This would seem to imply that at average tank ranges of 2,000 yards or less it is necessary only to align the tube on the center of a man-size target in order to get a hit. Assuming the gun to be accurate, which it is, the simplest of optical or even iron sights should suffice to get it on target. Actually, the M48 is equipped with a costly and complicated range finder which uses a depth perception principle. Training men to use it is difficult and time consuming. If the desired result is that the gunner know the exact distance from gun to target, this sight is useful. If the desired result



Live Meanly

is merely that the target be hit (and this would seem to be more logical), then this sight is an example of unnecessary over-mechanization.

The trend in all armies has been toward fully automatic small arms. Behind this is the belief that the more bullets a man fires, the more chances he has of inflicting casualties, and that the morale of our troops is bolstered and that of the enemy lowered by the sheer volume of lead, steel and noise thrown across a battlefield. Combat veterans are well aware that they have far more to fear from artillery and mortar fire. Fewer than fifteen per cent of our casualties in World War II were caused by small arms. Estimates by the Army's Operations Research Office on the number of rounds of small-arms ammunition fired to effect one casualty vary from two thousand to fifty thousand for different campaigns of that war.



On the other hand, the 1,000-yard rifle match held annually at Camp Perry, Ohio, has never in the past twenty years been won by a score of less than one hundred. This means that there are riflemen who can place twenty consecutive shots in a circle thirty-six inches in diameter at a range of a thousand yards in less than thirty minutes. Ten such riflemen in a proper position could decimate an entire company provided they remained cool under the massive volume of automatic fire they would certainly receive in return. If the ten were convinced that their accuracy was superior to the mere volume put out by the two hundred men in the enemy company, there would be no question of the outcome. This does not mean that these experts would fire only at visible targets. Bushes, hillocks, rocks, the bases of trees—all known or suspected target locations would be taken under fire—and *would be hit*.

Military vehicles, both wheeled and tracked, have been affected by the process of mechanization for its own sake. During World War II we measured the number of miles per gallon of gasoline for each vehicle. In 1958 we find ourselves measuring gallons-per-mile. Some of our experts in this field can show that we are actually getting more "ton-miles" than ever before. This means that where once we were able to move a twenty-ton vehicle a distance of ten miles for a certain expenditure of gasoline, today with the same amount of fuel we can move a fifty-ton vehicle perhaps five miles. Thus we are getting 250 ton-miles today as against 200 ton-miles in the past. But efficiency has not been in-

creased unless the fifty-ton vehicle is worth more than two twenty-ton models.

There is a general lesson to be learned from the above examples: not everything that is new or better in one particular respect is necessarily good or an overall improvement.

Psychologically, but not physically, prepared

It cannot be denied that the advent of nuclear weapons called for revolutionary rather than evolutionary changes in methods of waging war. As time goes on, unrestricted nuclear warfare becomes more and more of a possibility. Atomic warheads may be expensive, but there is no doubt that they are becoming increasingly numerous in both Soviet and American arsenals. No longer are atomic targets thought of in terms of large or important complexes only. The most delicate problem facing commanders today is how small or unimportant can a target be and still merit atomic attention. There is, of course, always the chance that the next war will be fought without nuclear weapons by spoken or unspoken agreement. Whether or not this happens, we must be prepared to use nuclear weapons and to expect the enemy to use them.

We are prepared, psychologically at least, to fight the next war under the worst possible condition: that of unrestricted nuclear attack. Unfortunately there is no source of previous experience in this kind of warfare and everything written on the subject is necessarily theoretical. But one fact is beyond conjecture: the destruction caused by atomic explosions so far exceeds that wrought by conventional weapons as to be absolute in the immediate vicinity of ground zero.

Dispersion and austerity

This factor has naturally led to the acceptance of two other ideas on the conditions of an atomic battlefield; one is the concept of wide dispersion of combat units and logistical installations; the other, enforced logistical austerity. No one denies the necessity for dispersion, although there is still considerable argument about its degree. This is really an evolutionary change which had its beginning almost one hundred years ago when high explosives started to make their effects felt on the battlefield. On the other hand, logistical austerity is a term which in this modern age of mechanical progress is truly revolutionary. It is also a term which has so far received little more than lip service.

It must be assumed that, due to the wide area of destruction around an atomic strike, it will be unusual to employ nuclear fires as close to the line of contact

between opposing forces as was normal with conventional artillery. Too many friendly casualties would result. More probable and profitable atomic targets will be troops and logistical and command installations in rear areas. This means that units in contact, while relatively safe from atomic fires, will stand in continual danger of having their logistical resources lopped off. It follows that their continued combat effectiveness will depend directly on the degree of independence of support from the rear.

The trend in the United States Army has been toward rather than away from dependence on rear-area logistical installations. Automatic weapons and the doctrine of area fire require more ammunition than units can carry. Vehicles require more and more fuel and more and more maintenance. There is a strong possibility that front-line units, having been accustomed to unlimited ammunition and fuel, will be psychologically and physically incapable of continuing the battle without them. This need not and must not be allowed to happen. With proper equipment, training and psychological indoctrination, small units will be able to operate independently of rear-area logistical support for extended periods. By small units I mean platoons, companies and battle groups. By extended periods I mean at least ten days. At the end of this time some contact with rear installations should be re-established.

To move and to kill

On any battlefield, atomic or not, a soldier or a unit must be able to shoot and to move. If the ability to do either is lost, neutralization by the enemy follows quickly. For our small units to maintain these capabilities while cut off from logistical support will require the hard, realistic training that presently is given only to special ranger-type units.

Each soldier must first be impressed with his importance to the success of the unit's mission. He must be made to realize that his weapon and ammunition are issued to him for the purpose of killing or wounding the enemy, not as a noise-maker to frighten enemy soldiers into keeping their heads down. The best way to keep an enemy infantryman from shooting at you is to kill him. A man recovers from fear a lot quicker than he does from a bullet in the guts. Once this idea has been absorbed, units will be able to carry enough ammunition to maintain combat effectiveness for extended periods. The guiding principle must be that only hits count in combat. Some progress is being made in this since the adoption of the Trainfire system of teaching marksmanship.

One thing we could do right now is remove the triple locks from the arms-room door and give the soldier back his personal weapon. If we expect a man to regard his rifle as his best friend on the battlefield, we should exhibit enough faith in him to entrust that rifle to his safekeeping in garrison.

Major James V. Christy, Infantry, was a platoon leader and company commander in the 28th Division during World War II, taught German at USMA, served as S3 of an infantry regiment, was an ROTC instructor, and, after completing the Leavenworth course, reports to MAAG, Vietnam, this summer.

Perhaps an even more difficult concept to put across to the individual soldier and the small-unit leader is the idea that the loss of fuel or even the majority of a unit's vehicles does not rob his unit of its mobility. There was a time when the normal method of moving a rifle company from one place to another was on foot. The American infantryman of today is more likely to have calluses on his buttocks than blisters on his feet. It is true that foot marches are still a part of infantry training, but in most units they are regarded as physical conditioning exercises and not as a method of troop movement. Time is of course the critical factor, since a man on his feet can average no better than three miles per hour while trucks should easily do five times that. But there may come a time when there are neither wheels available nor fuel to turn them. This time *will* come in an active atomic war.

The meaning of 'atomic plenty'

Stock levels of atomic weapons are naturally closely guarded secrets and it is therefore impossible for anyone to judge just how many there may be at any given moment. However, it is ridiculous to say that because these weapons are scarce and expensive today they will remain so next year, next month, or even next week. It is equally ridiculous to state that because we can visualize no active counter to the atomic explosion at this time, such a counter is impossible. Doubters of these two statements are reminded that in the middle of the nineteenth century serious consideration was given to closing the United States Patent Office on the ground that all possible aids to progress had already been invented. In a future war a field army may be forced to endure a much longer period of 'atomic plenty' on the part of the enemy than is presently contemplated.

What then will small units do when their logistical support is paralyzed or completely eliminated by nuclear strikes? Will they dig down deeper and wait for it to be re-established? If they do, they will surely die. The old oft-quoted expression about there being but two classes of people on a battlefield, the quick and the dead, remains valid for all times and conditions. With or without wheels our troops must be able to move. How fast? A well-conditioned soldier should be able to make twenty miles a day with a forty-pound load as a matter of course. Twenty-five or thirty miles can be done on a forced march. How far can troops march? Napoleon's grenadiers walked all the way from Paris to Moscow and back. Marching was the normal method of getting from one place to another for these troops. They were not supermen, but they were in the habit of using their feet as a means of transportation. Soldiers of tomorrow will have to relearn this habit if they wish to survive.

Foot soldiers on the site

In spite of the lessons of the recent past, there are still thinking people who believe that the infantry will

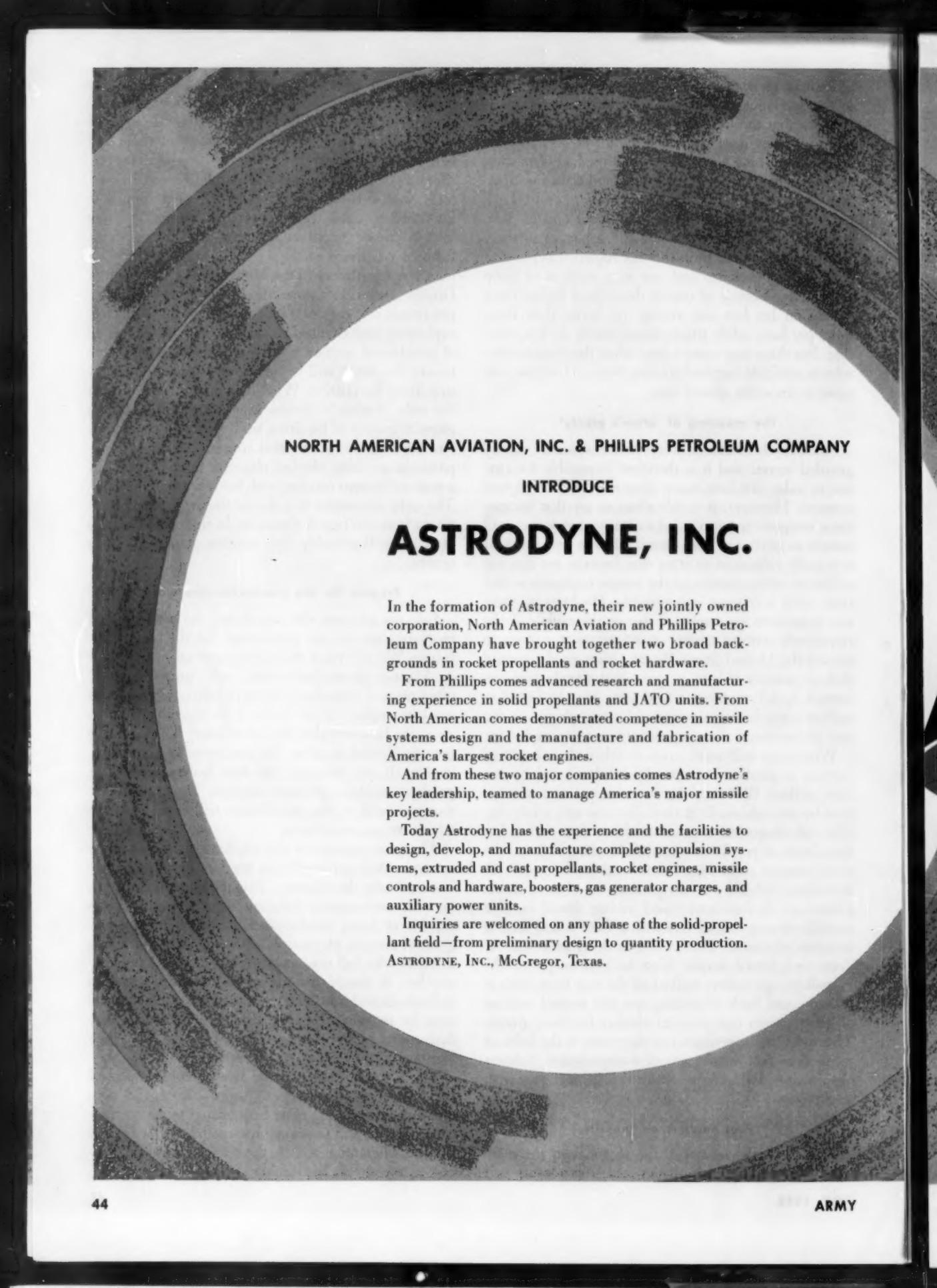
have no real value in a war dominated by long-range missiles. These are the dreamers who thought that the Air Force could win World War II alone. In spite of voluminous proof to the contrary many of them still believe that this actually happened. It is sometimes possible to get them to agree that despite repeated air attacks on launching sites, V-1s and V-2s continued to hit London until the sites were captured by foot soldiers. Some might even agree that Schweinfurt's factories continued to supply ball bearings to the German war machine until the United States 42d Infantry Division moved into town. But all this happened in the pre-atomic era, they say. The terrific effects of nuclear explosions have changed all that. Today, the real period of pushbutton warfare is at hand. They will agree that to win the war it will be necessary to make the enemy stop firing his missiles. What they do not realize is that the *only absolutely certain* way to do this is to gain physical control of his firing sites. This will be done by foot soldiers. No matter what arms and means of transportation are used, the last objective must be taken by a man on his own two feet with his weapon in his hand. The only alternative is a device that will wipe a continent from the face of the earth. In this case, the scene of action will probably shift to other parts of the solar system.

Prepare for the inevitable—the worst

I do not advocate that we discard the advantages of mechanization in our preparation for the war of the future. We will need every advantage science can give us. Missiles, planes, helicopters, tanks, trucks and every other piece of equipment that will help gain the victory must be applied to the battle. I do urge that we face up to the hard fact that the use of many of these things may be denied us after the first massive nuclear exchange. If our forces in the field become overly dependent on this equipment and the logistical support that goes with it, the loss of them will be a blow from which we cannot recover.

The plain answer to this challenge is more strenuous individual and small-unit training for all branches, but especially the infantry. This should include marksmanship and complete familiarization with all weapons capable of being manhandled. It should stress a program of rugged physical conditioning to include long marches with full equipment in all types of terrain and weather. It should include survival training for both individuals and units. The lost art of living off the land must be regained. Realism should be interjected into field exercises by cutting off small units from their logistical support for extended periods.

The severest strain will be felt by commanders of small units in all branches. Junior officers and non-commissioned officers must be prepared to act on their own initiative and to assume responsibilities far beyond normal. These men will be the cornerstone of our success on the atomic battlefield.



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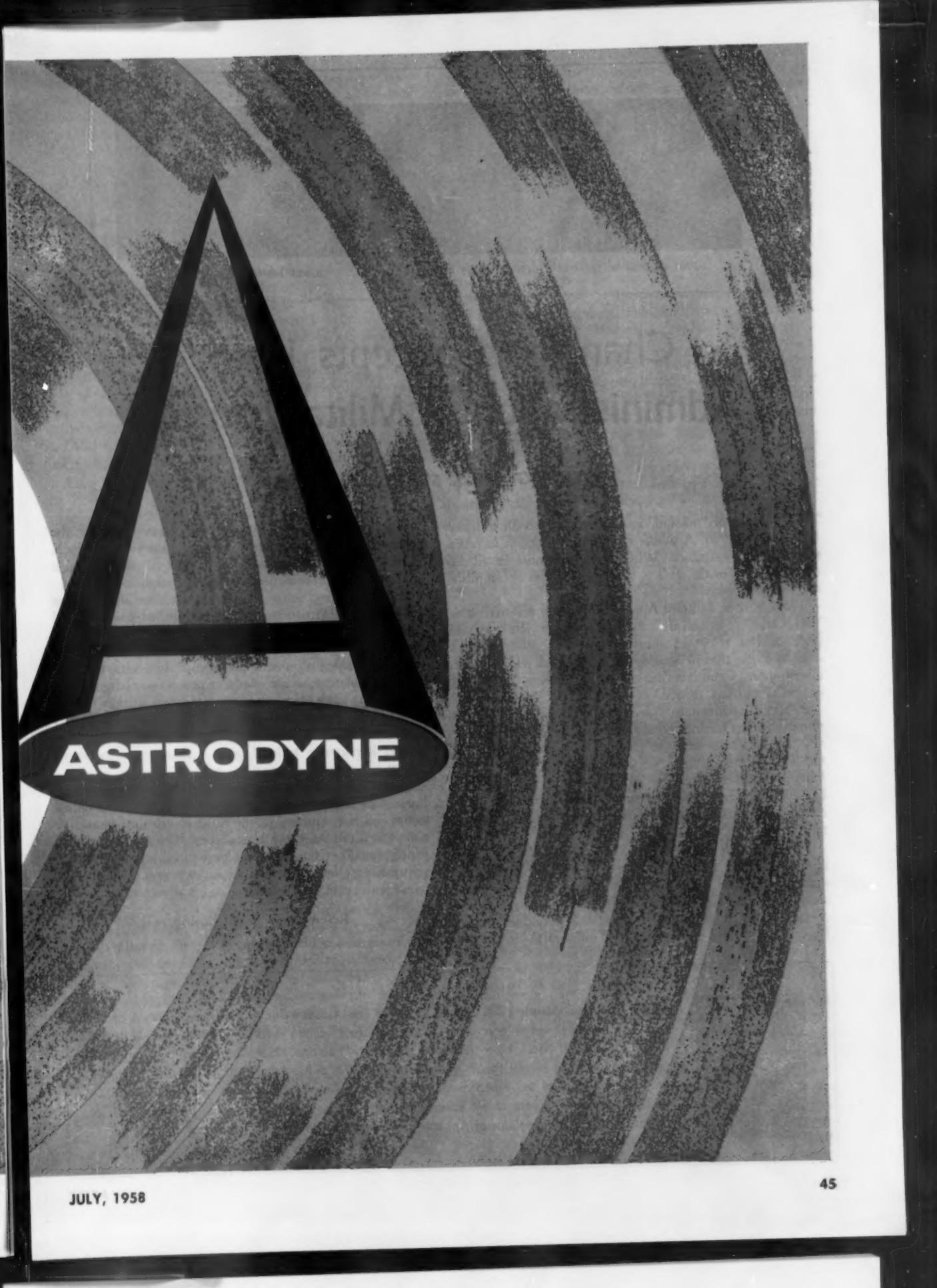
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Changing Concepts in the Administration of Military Justice

MAJOR GENERAL STANLEY W. JONES

THE concept of "mission" is one with which all military men are familiar. A soldier must have a mission in order to justify his existence. When decisions must be made, they must be made with a view toward the accomplishment of the mission.

The Court of Military Appeals (hereafter referred to as "the Court"), established by Congress in 1951 as the court of last resort in court-martial cases, conceives its mission to be that of leading those charged with the administration of military justice in the building of "a real system of military justice."¹

Public dissatisfaction with military law was one of the primary factors behind the enactment of the Uniform Code of Military Justice and the creation of a civilian court at the top of the military judicial hierarchy.² The Court has not failed to assert its leadership, and the past year has seen the rendition of judicial opinions which have effected significant changes in heretofore established military law.

I am sure that the Court of Military Appeals has every desire to make military justice an effective means of enforcing military discipline. The Court has taken the position that discipline can be achieved without relegating considerations of individual justice to a secondary status. By striving to raise the standards of military justice to the

level of the best facets of Anglo-American criminal law, the Court is seeking to inspire confidence in the system, which, in turn, should result in a better over-all morale and a consequent improvement in military discipline.³

Apparently feeling it necessary to achieve its goal, the Court has overturned many long-established practices and procedures in military law. In the course of enunciating these changes, it has seemingly swept aside the Government's persistent argument that compliance with the new rules will place a severe burden upon those charged with the responsibility of administering military justice. Consequently, there has been strong criticism of the Court. There are many who feel that its decisions have given greater importance to legal niceties than to the needs of justice.

While there may be disagreement as to the soundness of some of its decisions, the fact remains that the Court determines the law, and we in the military are duty-bound to comply with its decisions. I propose to discuss several recent controversial decisions by the Court—decisions that change prior military law, and thus create new and serious problems for the commander and his judge advocate.

Reference to MCM during trial

Any discussion of recent developments in military juris-



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prudence occasioned by decisions of our highest appellate tribunal might well begin with consideration of *United States v. Rinehart*,⁴ where the Court ruled that members of a court-martial may not consult the *Manual for Courts-Martial* during the course of a trial or during closed-session deliberations, and that the president of a special court-martial may use the MCM in open court, but not when sitting in closed session. In that case, involving a Coast Guard lieutenant commander, trial counsel, in arguing on sentence, referred the Court to paragraph 33 (h) of the Manual which states that "retention of thieves and persons guilty of moral turpitude injuriously reflects upon the good name of the military service and its self-respecting personnel." Questions posed by the president of the court to the law officer indicated that court members, in the course of closed-session deliberations, had consulted other portions of MCM containing general rules designed to provide guidance in the imposition of an appropriate sentence. After disapproving trial counsel's referring the court-martial to what it considered a "policy directive" in the sentencing area, the Court turned to the problem of permitting court members to refer to the Manual during trials or during closed sessions.

Recognizing that the "change in military law occasioned by [this] decision represents a substantial departure from prior service practice," the Court condemned the practice and demanded that instructions on applicable law be given in open court. The majority view was based primarily on three grounds: (1) that civilian courts do not permit jurors to consult reference material during their deliberation; (2) that many portions of MCM have been expressly or by implication invalidated by the Court of Military Appeals and thus have no rightful place in proceedings before courts-martial; and (3) that court members are not sufficiently trained in the law to justify permitting them to determine and to interpret applicable legal principles.

The dissenting judge, while agreeing that a court-martial cannot properly consider portions of the Manual which have, in fact, been invalidated by the Court, felt that MCM was a sufficiently valuable aid in trials by courts-martial to warrant retention of the general practice. He would examine each case on its facts to determine the probability that an invalidated portion of the Manual had actually been employed in a given case, and where that was true, he would reverse. After indicating that the practice prohibited by this decision was one long accepted and approved in military jurisprudence, the dissenting judge argued that the role of the court members in trials by courts-martial is significantly different from that of civilian jurors in that military jurors often perform functions reserved to judges in civilian courts. Thus, military court members perform the function of a civilian judge in sentencing an accused and might find helpful certain general principles in regard thereto which appear in the Manual. Moreover, members of general courts-martial have authority to overrule law officers on some questions of law, and the dissenting judge felt that "they must have a working knowledge of the provisions controlling their authority." He further pointed out that prohibiting reference to the Manual during trial or a closed session would hardly leave court members entirely ignorant of the contents of MCM in view of the fact that their work in connection with summary and special courts makes it imperative that officers understand various aspects of military law.

The majority of the Court also recognizes that courts-martial members perform various functions of a judge and that they are likely to be familiar with various aspects of military law before entering a courtroom. However, they refuse to permit court members to consult the Manual to help them perform their "judicial" responsibilities. In the majority view, such legal knowledge as is required by court members which is not expressly provided by the law officer or president must be the product of prior experience or courses in military law. In this regard the dissenting judge stated that he would "prefer to have a court member refresh rather than rely on his memory."

It would appear that the majority of the Court envisions as ideal to serve as members of general courts persons who have little or no familiarity with the Manual and are thus capable of accepting and applying without hesitation the law as announced by the law officer. On the other hand, special-court members should have a knowledge and understanding of military law comparable to that of a qualified law officer so that they may correct any error or supply any omission which may be made by the non-lawyer president. Moreover, where in general courts, complex legal concepts may be reduced to simpler terms by the legally qualified participants at the trial, such aid is unavailable at the special court. The ability of members of these tribunals to consult the detailed discussions and examples provided by the Manual has undoubtedly increased their understanding and appreciation of the legal propositions applicable in a given case. To deprive them of this assistance may place a heavy burden on the legally untrained president of the special court. And where during deliberations of a special court-martial, any member of the tribunal desires clarification of a legal principle, before the president can employ the Manual in the course of his explanation, the Court must be reopened. Obviously, if courts are closed and reopened continually during deliberations, trials will be lengthened, and inconvenience and delay will result.

Whether it is felt that the *Rinehart* rule will result in unforeseen difficulties and inconveniences in trials by courts-martial, especially special courts-martial, the mandate of the Court is clear. Members of courts-martial may not consult the Manual either during trials or during closed sessions. In general courts-martial the law officer shall instruct on all applicable law in open court. In trials by special courts-martial this responsibility shall devolve upon the president of the court. The president of a special court may not use the Manual in closed-session deliberations since he serves as a court member as well as its president. Wherever court members meeting in closed session desire clarification of the law applicable to either findings or sentence, the court must be reopened and the desired information conveyed by the president in open court so that the accused and his counsel can hear the instructions as they are given to the court.

Right to personal testimony

An example of the relative unimportance that the Court attaches to considerations of administrative inconvenience is provided by *United States v. Thornton*.⁵ The accused, who was assigned as officer in charge of the post crafts shop, worked out a scheme whereby he overstated overtime hours for certain enlisted men who agreed to turn over their extra compensation to him. Regulations prohibited compensation to officers for working past normal duty

hours and the plan was designed to circumvent the regulations so that he might receive remuneration for his overtime. The contention of the defense was that there was no criminal intent on the accused's part because his superior officer had suggested and specifically approved the plan. Defense counsel sought to support this defense by requesting the subpoenaing of a former officer, the accused's predecessor, who allegedly had participated in the conversation in which the superior officer suggested the plan. The accused's predecessor was now some 1,200 miles away. The request was denied before trial, and then during the trial by the law officer. Thereupon, defense and prosecution agreed to stipulate that this witness would have testified to the conversation that the accused alleged had taken place. This stipulation, of course, did not establish that the conversation actually occurred. In fact, the superior officer who allegedly had suggested the plan, testified at trial that he did not recall making such a suggestion.

A majority of the Court held that the law officer's denial of the request to subpoena constituted prejudicial error, on the ground that the testimony sought to be elicited from the witness went to the core of the accused's defense, and that, accordingly, the accused had a right to the personal testimony of his witness and should not have had to utilize a stipulation or deposition. The Court was thus giving valid recognition to the superiority of live testimony over that appearing in recorded form, and was clearly seeking to prevent arbitrary denials of requests for this live testimony. However, the limits of the Court's decision are not clear. It seems certain that the accused is not always entitled to have his witnesses subpoenaed to testify from the witness stand, particularly when (as in this case) the prosecution agrees that the witness will testify as the accused contends. Depositions must sometimes be sufficient. In a later case,⁶ the Court emphasizes that the right to personal testimony exists only when it is essential or crucial to the accused's defense. But, as applied to *Thornton*, does this mean that a superior officer's consent to an act which is clearly dishonest as well as a violation of regulations, is a legal defense? The dissenting judge thought not, and attached no significance to the proposed testimony other than that "it merely raises doubt about the number of individuals who may have had knowledge of the fraud."

The fundamental principle here concerning the superiority of live testimony is clear. Nevertheless, future courts must strive to comply with the rules evolving from this case, and here is where the interpretative difficulties arise. If compliance means that subpoenas must be granted far more often than they have been in the past, the possibilities of delay and inconvenience are obvious. A witness may be in a distant part of the country and everyone may agree as to what he would say. Nevertheless, there is now a real risk of error if he isn't brought to the trial. Those concerned with the administration of military justice in a command must now uncertainly feel their way along in this area, in order to avoid the commission of reversible error.

Counsel at investigations

Another case that increases the load on the military involves an increased requirement for lawyers. In *United States v. Tomaszewski*,⁷ it was held that accused persons are entitled to be represented at pre-trial investigations by legally qualified counsel. Article 32 of the Uniform Code of Military Justice gives the accused the right to request

the officer exercising general court-martial jurisdiction to detail "counsel" to represent him at the investigation. The legal issue was simply whether "counsel" as used in the statute requires the appointment of a lawyer, or only a competent officer, and the case required an analysis of intent on the part of Congress. Since the legislative history was not precisely revealing, the judges were required to make an educated guess. The majority of the Court held that a lawyer was required on the ground that the investigation is fundamentally a part of a general court-martial and Congress did not intend to differentiate between the two in regard to the qualifications of appointed counsel. In arriving at this result the Court paid scant heed to the fact that "counsel" has in the past meant no more than an officer, and that Congress could have provided specifically for legally trained counsel as it has in other sections of the Uniform Code of Military Justice, had it intended to change the prevailing practice. The dissenting judge alluded to the prior tradition in concluding that there is presently no requirement to appoint a lawyer, despite his apparent personal views as to the desirability of such a provision. In his dissent he calls attention to the possible burden upon the Government inherent in the requirement that lawyers must be furnished. An Army board of review has interpreted this case to mean that the failure to appoint a lawyer upon a request for counsel is not reversible error by itself, and that it must be further shown that the rights of the accused have been specifically prejudiced.⁸ However, the door has been opened, and if the Court should hold that the failure to appoint a lawyer alone requires reversal, and if every accused should insist on the appointment of a lawyer and refuse to waive this right, the burden upon the legal resources of a given command would be materially increased.

Another case in which the obligation of the service to furnish legal counsel was in issue is *United States v. Gunnels*.⁹ The accused, an Air Force officer, refused to testify before investigative agents until he had an opportunity to consult with counsel.¹⁰ He was permitted to go to the office of the base staff judge advocate, but was told by that office he would not be furnished any legal advice. Later, when charges were served upon him, but prior to their being filed, he appeared at another investigative proceeding with a judge advocate whom he had asked to represent him. The agents refused to allow the attorney's presence and the staff judge advocate indicated that the accused was not entitled to have the counsel present.

The Court held that the accused was deprived of military due process by virtue of the denial of the right to counsel. While a person suspected of committing an offense is not entitled to the appointment of counsel prior to the filing of charges, a request by him that he be allowed to consult a lawyer of his own choice, military or civilian, or the staff judge advocate, as to his rights during investigative proceedings by law enforcement officers, cannot be denied. When the suspect requests this advice from the office of the staff judge advocate, he should be advised that he has a right to consult with a lawyer of his own selection in connection with an interrogation by a law enforcement agent. The case also appeared to hold that the suspect was entitled to have his counsel physically present with him during the interrogation, but in a later case¹¹ the Court states that it has not yet reached that issue.

The Court's decision in *Gunnels* appears to rest upon

the basically sound foundation that a person suspected of committing a crime has the right to consult counsel if he is going to be interrogated, and that when he requests legal advice to this effect, he must be advised of his right. The requirement that members of the office of the staff judge advocate advise accused persons of this right when they seek advice is hardly unreasonable, if it merely extends to telling them that they have a legal right to obtain and consult civilian counsel. However, the *Gunnels* case has been subjected to the possible interpretation that accused persons have a right to have military counsel of their own selection present with them during investigative proceedings, not just civilian counsel, even though charges have not been filed and the accused is not yet entitled to the appointment of counsel. This latter conclusion could, of course, place an obvious strain upon the personnel of a staff judge advocate's office. However, nothing the Court has said thus far clearly calls for this result and the *Melville* case now creates additional doubt as to the right to have even civilian counsel physically present during the interrogation. Nevertheless, military lawyers and their commanders must be alerted to this possibility.

Gambling erases larceny

Another recent case has changed a military concept centuries old. All military personnel should be aware of the recent decision in *United States v. Walter*.¹¹

The accused was in a poker game and was apparently running short of cash. He made out some incomplete checks for military payment certificates, some of which were cashed by two of the players, and some of which went right back into the game. As might be expected, all the checks were won by the two players who had advanced the money, but they turned out to be worthless. The accused was tried for larceny and convicted.

The Court reversed the conviction and dismissed the charges on the interesting theory that since gambling is illegal, it is not a crime for one player to steal from another. To arrive at this conclusion, the Court took the approach of a minority of courts by applying the civilian law against the enforcement of gambling contracts to the criminal law. The Court stated that "[We] will not act as the 'strong arm' of a collection scheme for gamblers," and that this decision would discourage gambling by requiring a "hard money" policy among gamblers. Of course, observers have been quick to note that while a majority of courts have adopted a similar position in regard to the enforcement of gambling debts through civil suits, it has seldom been carried over to larceny by check in the gambling situation.

The concurring judge supported the decision on a novel theory: the players merely consented to gamble on the check being good, and lost—reasoning which would probably come as a shock to most gamblers. The dissenting judge was quite vehement in his belief that this was a clear case of larceny, and that previous military law to that effect was being upset on moral rather than legal principles. In a parting shot, he stated: "As a caveat to those in the Service who play penny ante, I can only say, do not cash a check for your most trusted friend if he happens to be in the game."

When is a statement official?

The case of *United States v. Aronson*¹² offers another

example of the manner in which military law changes as a result of a Court decision. Heretofore, the practice of charging an accused person who, during an official investigation, denies committing an offense, with the additional offense of making a false official statement, had been well established, though often subjected to legal attack. The practice had been sustained on the theory that a false statement made during the course of an official investigation constituted a false official statement and that the privilege against self-incrimination was not license to lie.

In *Aronson*, the accused was entrusted with a base fund in which a shortage was discovered. An official investigation was launched, and the accused was questioned. He denied taking any money, and later signed a written statement to the same effect. Subsequently, however, he confessed to the act. He was then tried for the offenses of larceny and making a false official statement, and convicted. The Court in this case upheld the conviction on the ground that the accused here had been assigned the duty of taking care of the fund, and was therefore duty bound to account for it, including the answering of official inquiries.

The Court, in what lawyers characterize as *dicta*, went on to distinguish the facts from the situation where a person is suspected or accused of a crime unrelated to any duty or responsibility imposed upon him. In the latter instance, the accused is under no obligation whatever to give a statement to an investigative agent, and any statement he makes has no officiality, so that a lie cannot be charged as a false official statement. Presumably, then, the denial of the commission of a murder by an accused person during an official investigation would not be a false official statement, even though the accused in fact committed the murder, unless the homicide was committed in the course of official duties; for example, a prisoner guard.

It thus appears that a large segment of the law of false official statements has been reversed. While the Court upheld the conviction in the *Aronson* case, it purposely went farther than it had to and made clear its views as to charges concerning facts beyond the present case. The military lawyer is thus placed on notice as to how the Court would act in different circumstances, and he must therefore advise his commander to proceed cautiously in the future with respect to charges concerning the offense of making a false official statement. For example, as a result of this *dicta*, an Army board of review considered itself bound to conclude that false statements made by a suspect in the course of an official investigation into the commission of sex offenses for which he was later convicted were not false official statements under the Uniform Code of Military Justice. Putting the *Gunnels* and *Aronson* cases together, a criminal is now well advised to ask his lawyer whether he may deny committing the offense under investigation without fear that his lie may become the basis for an additional charge.¹³

It must be noted that the opinions expressed in *Aronson* are apparently concerned solely with offenses charged under Article 107 and not with offenses properly charged under Articles 133 and 134. Thus, whether an accused who, while under oath administered in accordance with the Code, falsely denies guilt to a criminal investigator, can be charged with an offense under Article 134 is still open to question. And the Court apparently has not retreated from its previous position that the offense may be

charged as conduct unbecoming an officer.¹⁴ To be the basis of a charge under Article 134, a statement need not be "official" but rather false under an authorized and properly administered oath.¹⁵ It would appear that in announcing their *Aronson* opinion, the judges did not contemplate giving accused persons *carte blanche* to lie when under investigation, for the Court significantly stated: "Whatever offense the accused might commit by lying under these circumstances, his statement is not 'official' within the meaning of Article 107." Subsequent cases will determine whether this is a correct analysis of the Court's position.

Absence and intent to return

Even certain concepts in regard to the traditional military offense of desertion have undergone change as a result of recent decisions of our highest appellate tribunal. In *United States v. Cothorn*,¹⁶ where a seaman was tried for desertion after a seventeen-day absence which had followed a series of absences most of which had been terminated by apprehension, the Court held that it was improper for the law officer to instruct, in effect, that an accused may be found guilty of desertion on the basis of a prolonged absence alone. Although this principle has been accepted for more than sixty-five years¹⁷ and even referred to with approval by the Court of Military Appeals in its first decided case as well as subsequent decisions,¹⁸ the majority now reasons that an instruction framed in these terms may cause court members to feel free to substitute a period of absence for the specific intent required to establish desertion. The concurring judge stated that common sense and experience support the Manual's rule that an intent to remain away permanently may be inferred from a prolonged absence for which there is no satisfactory explanation and that this principle had long been approved by the Court itself. However, he agreed with the disposition of the case on the ground that an absence of seventeen days standing alone is too short a period from which one could logically deduce an intent not to return.

In a subsequent decision, *United States v. Soccio*,¹⁹ involving an absence of more than four years, the Court refused to limit the *Cothorn* rule to cases involving absences which, standing alone, do not justify the inference that accused intended to remain away permanently. The Government earnestly urged that an absence of more than four years standing alone justified the inference that the accused intended to remain away permanently and thus rendered correct an instruction advising the court to this effect. However, the Court indicated that a court-martial should be advised that an absence, regardless of its duration, is "merely one fact from which, when considered with all the other evidence in the case, an intent to desert may be inferred."

Although these cases deal solely with the instructions which must be given in a desertion case, it is not too difficult to imagine that they may be viewed as raising some question as to the quantum of evidence which the Government will be expected to offer in such cases. If it is improper to advise a court-martial that an accused may be found guilty of desertion on the basis of a prolonged absence alone, can such proof, regardless of the duration of the absence, be considered sufficient to warrant the sustaining of such a conviction by an appellate tribunal? But what of those cases where the only evidence available to

the Government is the length of a much-prolonged absence? If, for example, an accused has absented himself for fifteen years and this absence is terminated in an unknown manner, is not such evidence sufficient to justify a court-martial's inferring that the accused intended to remain away permanently? And if such an inference is supported by common sense and experience, is it not proper to advise a court that the inference may be drawn from such evidence limited as it may be? Although these questions were apparently put to rest by earlier decisions of the Court,²⁰ and perhaps confirmed by a recent refusal of the Court to entertain an accused's petition on this precise ground,²¹ it still remains to be seen whether any further changes in the law of desertion will result from future decisions.

Conclusion

It is, of course, apparent that all of the recent significant developments in military law can hardly be treated in the space available. An attempt has been made to discuss certain cases and trends which, it is believed, are of more than passing interest to commanders from company to convening-authority level and to others generally concerned with the administration of military justice. Naturally, these observations are not designed, even in the areas discussed, as a substitute for the detailed and on-the-spot advice which is provided by unit staff judge advocates.

The cases discussed demonstrate that the Court of Military Appeals has not been reluctant to cause substantial changes in traditional concepts and practices within the military legal framework even when faced with the argument that such changes would result in increased difficulties in the operation of that system. Needless to say, this willingness to initiate such changes has benefited accused persons far more often than it has the prosecution. Time and experience alone will demonstrate whether these decisions will result in a higher standard of justice. It is possible that even as this article is being read, decisions rendered too late to permit analysis at this point will answer a number of questions raised here and also introduce new concepts and practices which will have to be understood and applied by members of the armed forces.

1. *United States v. Wilson*, 7 USCMA 713, 23 CMR 177, 180.
2. HR Report No. 491, 81st Congress, First Session (1949), pp. 6, 7.
3. In *United States v. Renton*, 8 USCMA 697, 700, 25 CMR 201, the Court stated: "Since the pioneer days of this Court's development, it has eagerly sought, whenever the occasion has presented itself, the opportunity to raise the level of military justice to the high and preferred place where it belongs in our free society."
4. *United States v. Rinehart*, 8 USCMA 402, 24 CMR 212.
5. *United States v. Thornton*, 8 USCMA 57, 23 CMR 281.
6. *United States v. Harvey*, 8 USCMA 538, 25 CMR 42.
7. *United States v. Tomaszewski*, 8 USCMA 266, 24 CMR 76.
8. CM 397652, Bell, 16 December 1957.
9. *United States v. Gunnels*, 8 USCMA 130, 23 CMR 354.
10. *United States v. Melville*, 8 USCMA 597, 25 CMR 101.
11. *United States v. Walter*, 8 USCMA 50, 23 CMR 274.
12. *United States v. Aronson*, 8 USCMA 525, 25 CMR 29.
13. CM 398024, Garrison, decided 29 January 1958.
14. *United States v. Gomes*, 3 USCMA 232, 11 CMR 232.
15. MCM, 1951, par. 213 d (4).
16. *United States v. Cothorn*, 8 USCMA 158, 23 CMR 382.
17. Judge George Latimer in *United States v. Lee*, 8 USCMA 709, 710, 25 CMR 213.
18. *United States v. McCrary*, 1 USCMA 1, 1 CMR 1; *United States v. Cirilli*, 1 USCMA 568, 4 CMR 160; *United States v. Uzzo*, 3 USCMA 563, 13 CMR 119.
19. *United States v. Soccio*, 8 USCMA 477, 24 CMR 287.
20. See note 18.
21. *United States v. Johnson* (No. 11,035), petition denied 27 January 1958.



There are 146 foolish reasons why millions of Americans persist in believing it won't happen here. Each represents one year since 1812, when the Continental United States was last attacked by a foreign foe. It can happen here and one of the best ways to bring it about is to be so unprotected as to invite attack. One weak point in our shield of protection is Civil Defense. In articles in this issue by the retiring Commander of Continental Army Command and the Army's Chief of Engineers we explore the Army's relation to Civil Defense.

The Army's Role in Civil Defense

SINCE the Army's principal interest in civil defense lies in the what-we're-doing field rather than in the why-we're-doing it, I will trace the path of the Army's civil defense mission through the chain of command, starting at the policy level and moving down to our implementing forces in the field. By doing that we can follow the guidance received, developed and transmitted at each successive level.

Military support of civil defense was re-emphasized in recent directives from the Department of Defense and the Joint Chiefs of Staff which consolidated functions previously performed unilaterally by each of the three services. These directives designated the Department of the Army as being primarily responsible for coordinating an all-services program. In addition, they promulgated four basic precepts:

- ¶ Military commanders will be prepared to assist Civil Defense authorities by using resources not required for essential military tasks. Essential tasks are defined as the actual defense of the United States against attack, offensive combat operations and their planning, and the direct support of those operations.
- ¶ Unilateral service plans at the level of the Zone of the Interior army will designate those military resources which could be used in an emergency to assist civil authorities.
- ¶ The Army, the Navy, the Air Force and the Marine Corps separately will organize disaster-type teams within each z1 army area.
- ¶ All persons in the military services will be trained in civil defense subjects.

The Department of the Army acted promptly on this

GENERAL WILLARD G. WYMAN



General Willard G. Wyman, who had been commander of U. S. Continental Army Command since March 1956, retired on 31 July after forty years of service. This article is drawn from an address by General Wyman to the National Association of State and Territorial Civil Defense Directors at Washington on 9 April 1958.

guidance, in conformity with its newly assigned responsibilities. To set the wheels in motion, the Chief of Staff directed the Commanding General, USCONARC, to begin civil defense planning and training to provide for two separate contingencies. Operations, rather than policy, are his concern. Meeting these contingencies is the heart of the Army's doctrine for civil defense. Under the first contingency (which I will call Case A) the Army supports the civil authorities and assists them in alleviating devastation that would inevitably result from an enemy attack. Under the second (which I call Case B) it must be prepared to take over civil defense operations in those areas of the United States where local civilian units have ceased to operate.

On the strength of this instruction, CONARC developed a training program for certain Army units to prepare them for operations in either contingency.

CASE A, during which we support the civil authorities when they are still able to cope with the emergency, is marked by the use of disaster teams to furnish a particular service for which their military training has qualified them; for example, the employment of medical teams to operate an emergency hospital. Although these teams work under their normal chain of command, they may also operate under the direction of certain civilian officials. To illustrate, medical personnel could work at a particular location selected by Civil Defense authorities, or be used to implement the medical phases of a civil defense plan. However, they would always remain under Army control. Logistical back-up in such a situation would come from Civil Defense stockpiles augmented from military sources where possible.

CASE B would see the military assume full responsibility for establishing law and order and protecting life and property when civil authorities become powerless. The significant characteristic of Case B support is the maximum utilization of available civilian resources under military supervision.

Under Case B conditions, cadre-type teams of specialists use troops to collect and direct the civilian skills and resources that provide civil government services. The medical team that actually staffed a hospital in the first contingency might in Case B supervise the assembly of doctors, nurses, and medical supplies needed to sustain one emergency treatment facility or several. If a medical unit is not available for this task, the mission can be given to troops of any arm or service.

Case B conditions require some form of military control, or the establishment of military areas where they become necessary for our operations. Commanders would need the authority to conscript and commandeer, as well as the corollary punitive powers inherent in any system enforcing law and order in such circumstances. This action would be based entirely on necessity, and materialize at the direction of the President or by authority delegated by him to the Secretary of Defense.

At this moment we are training our people so that minimum orientation is necessary in the event of their commitment to support Civil Defense. Training for a Case A contingency is not especially difficult, since there will be no radical change in work assignment. Case B tasks, however, demand additional instruction of officers and noncommissioned officers in subjects such as the organization and operation of Civil Defense agencies, the characteristics of an atomic or thermonuclear burst, the orientation of military skills to combat disaster conditions, the selection of sites for emergency installations, and the authority and responsibilities of commanders during periods of military control.

THE organization of cadre-type units is also progressing. Our advances in this direction have not reached the training stage, and it will take a considerable length of time for the 21 armies to really get into this part of the program. This delay cannot be avoided, since such units must come from within currently authorized troop strengths and fund allocations. Units of our reserve components are fully aware of this planning for contingencies. Their training programs are being refined to stress military support of civil defense operations, both in the pre-attack and post-attack stages.

So far I have described the conditions under which military support would be rendered, and the training and organization that must underscore a productive effort. Our resources cannot be applied haphazardly either in battle or in support of civil defense. They must be committed in order to implement practical and intelligent plans. These plans exist, or are in advanced stages of preparation. Those for the second contingency presuppose that the President will have seen fit to proclaim military control in specific localities where devastation has caused a breakdown of civilian authority.

In the Army's view, civil defense must be planned on a "target complex" basis, with the extent of the complex determined by the natural support afforded by the area surrounding each target. CONARC defines the major target complexes in the Continental United States, while each 21 army develops plans for less vital complexes within its own boundaries. State, county and municipal boundaries do not influence this planning. We visualize cutting up the area of a complex into divisions, districts and zones.

TO illustrate the scope of this target complex system, let's use St. Louis as a hypothetical aiming point. Acting under military control proclaimed by the President after the attack, the commanding general of Fifth U. S. Army, with headquarters at Chicago, assumes control over those areas close to St. Louis which harbor resources needed for post-attack recovery. No doubt he would extend such control to include Fort Leonard Wood (near Waynesville, Missouri), since that is the closest sizable military installation. As ranking officer in the complex, the commanding general of Fort

Leonard Wood would be designated district commander. To head up his zones he might employ the five senior commanders of units at his post, and have them levy their own units to provide civil defense cadres.

However, the people in those zone structures would be mostly civilians. Immediately the question arises: who are these civilians? To answer, I must stress that military planning for civil defense is based in a large degree on civilian plans. Our foremost desire is to get a complex back on its feet and return it to civilian control as soon as possible, in order to free us to pursue our primary mission of combat. To procure this civilian assistance, we would lean heavily on the catalogs of personnel and resources prepared under Civil Defense direction prior to an attack.

In addition, we anticipate that civilian plans may prescribe early evacuation of key officials once the alert sounds. They would be returned to the stricken area as soon as feasible, to serve as advisors and assistants to military commanders. If this cannot be done, we would seek from outlying cities officials familiar with civic problems and who generally understand the workings of the government of St. Louis. Mayors, chiefs of police, fire marshals, and sanitation commissioners from these neighboring communities would serve St. Louis in their same capacities, to hasten rehabilitation of the devastated area.

Having explored the leadership aspects of this military-civilian team, let's examine the rank and file. The two types of civilian we must locate and put to work are the specialist and the unskilled laborer. Pre-attack planning will have established the exact number of doctors, nurses, clergymen, and other key persons needed in a given zone. Reference to civil defense plans will permit the zone commander to dispatch a cadre to Mainville, let's call it, assemble the necessary materials, and direct their dispatch to an area having priority requirements. Suburbanites who escaped the force of the blast and physically fit residents of St. Louis proper could be the source of unskilled labor.

Eventually, recovery will progress to where there is no longer need for military control. When law and order are restored to manageable proportions, the Army moves out and returns to its traditional role. Such would be the nature of a temporary military administration.

THAT, in brief, is a report of the Army's progress in planning to reinforce the national civil defense effort. Ours is a doctrine of extremes, ranging from the commitment of minimum support to the temporary replacement of civilian authority in devastated areas. We think this doctrine is flexible enough to be adapted to any degree of emergency between the two extremes. It may pain a democratic society, but that does not detract from its quality of realism. We pray that the time will never come when we will have to put it into practice.

A word on my personal thoughts regarding the Army's place in civil defense. Above all, the Army does

not aspire to enlarge our responsibility *under existing conditions*. We exist for a single purpose: to defeat the enemies of the United States when summoned to the task by our Government. In the face of that mission, we cannot precommit one man, one truck, or one shovel, to any job not directly pursuing that end. I consider the Army's resources far too meager already. To disperse them further would be at our national peril.

Still, we adhere to the principle that Civil Defense is an integral part of national security. We know that solidarity in defense deters attack. How then can we reconcile these contrasting positions—reluctance to make advance allocation of means, and the desire to see civil defense placed on a firm footing?

I have given considerable thought to these perplexing issues. Essentially, we must find a way of building Civil Defense without depleting our military services in doing it. In the realm of personnel support, there is a logical solution to the problem which, I add, is a wholly personal view.

CIVIL Defense has a desperate need for good people who can plan, control, and supervise. Civil Defense can find men with just these skills: our Reserve officers not subject to early mobilization during an emergency. The Reserve structure contains a large pool of mature officers with wide experience in command and staff work—more than are presently assigned to active Reserve units. Picture the dividends that could accrue from having civil defense planning done by qualified specialists. Wouldn't more efficient coordination and liaison between the military and Civil Defense result? These people would belong to the Civil Defense team, driven by the same sense of urgency that motivates our Civil Defense volunteers.

I can recall a time when rapid action born of experience would have crowned the joint effort of Army and Civil Defense with greater success. Maximum benefits were not realized during last year's Operation Alert because Civil Defense agencies were slow in advising the Army of their needs in military support. The Army was at the service of Civil Defense, and had alternate headquarters in place—nation-wide—with effective communications tied into the proper agencies of the Federal Government. Of course, time-phasing the exercise left Civil Defense short-handed during most of the operation's critical phases. Here is the point: What would have been the reaction of Civil Defense if it had had planners whose full-time participation was assured not as volunteers, but as public servants executing a sworn duty? If the proposal to use reservists has merit, Civil Defense should investigate and take action.

We are concerned with defending ourselves against a ruthless enemy. The Army's secondary mission is to lend its strength to civil defense efforts. In order to do that we must have the support of Civil Defense, to insure that the American people know our needs and that these needs can be translated into tangible resources.



WHEN ATOMIC DISASTER STRIKES

Blueprint

MAJOR GENERAL
EMERSON C. ITSCHNER

The fate of the nation may depend upon how fast we can recover from nuclear attack. The dimensions of the problem and ways to meet it are considered by the Army's Chief of Engineers whose civil works organization has had more experience in reconstruction after disaster than any other federal agency. We should, he writes, mobilize our construction power now.

for Quick Recovery

In our efforts to counter the menace of international communism, we have been inclined to overlook one essential reality of modern military technology: nuclear firepower works for both sides, and not exclusively for us. No Cold War planning can overlook the basic enemy capability of striking directly and with devastating force at our civilian populace. Short of effective disarmament, we must consider and be prepared for all-out atomic assault by the Soviets as a grave and growing threat. The needs of civil defense and the protection of civilians must be carefully weighed against the threat, not only in their humanitarian aspects but also in their relationship to our over-all national military planning.

The welfare and protection of our people against disasters caused by Nature has long been a major concern of the Army's Corps of Engineers. Since as early as 1850 and continuing to our time, the Army's Engineers have administered the flood-control programs of the Federal Government. Assistance to local interests in times of flood crisis is an important part of this responsibility. The Flood-Control Act of 1936 gave the Corps special continuing authority to supplement local resources in flood-fighting and rescue work and to undertake emergency repair and restoration of damaged or destroyed flood-control works.

When natural "major disasters" are declared by the President pursuant to the Disaster Act of 1950, the Corps of Engineers, as one of the Army's technical services, may be called upon by the Federal Civil Defense Administrator, acting in behalf of the President, to participate in the Federal program of disaster assistance. When floods become sufficiently severe to be called "major disasters," the Corps may be assigned disaster missions in addition to those it performs under its statutory authorities. These additional missions include such activities as clearing debris and wreckage, and repairing and restoring public facilities.

The record of recent years abounds with instances when the Corps of Engineers was called upon to meet those challenges. That it has done so with effectiveness and dispatch is not a matter of chance. The geographical command structure of the Corps' civil works organization, its close relations with our construction industry, and the back-up provided by its military structure are resources readily adaptable to emergency disaster needs. Specific authorities

and assignment of responsibilities have allowed the special planning and organization necessary to apply these resources quickly on a nation-wide basis when Federal disaster assistance is required.

166 bombs on 155 cities

Against this background of accumulated experience in natural disaster relief operations, we cannot be complacent when facing the possibility that we may have to meet an attack of the type assumed for Operation Alert 1957. During this exercise, 166 bombs ranging from twenty thousand to twenty million tons of TNT equivalent were presumed to have been dropped on 155 cities in the United States and its possessions. The over-all effects of the attack as assessed by the exercise directors are reflected in these excerpts from press releases issued during and after the operation:

The devastation ranged from catastrophic in the Far West, where huge multi-purpose dams were knocked out, to critical in the crippled but still fighting Northeast, where food and water shortages exist. The Gulf states bore the lightest burden of the simulated attack.

More than 55 per cent or 95,500,000 out of the approximately 170 million people in the United States, lived within in the target areas hit by the simulated enemy bombs and submarine-launched missiles. And it was not alone the Continental United States that suffered—Alaska, Hawaii, the Panama Canal Zone, and the American island of Samoa were also hit.

All of the nation's medical resources were employed to deal with the casualty problem. Food, shelter, and clothing were provided for an assumed 41 million evacuees—about 23 per cent of the nation's population—after the assault. Radioactive fallout was predicted and recorded and warnings given to affected areas.

Fires set by the "attack" demanded all available fire-fighting facilities in the nation. Besides fires in the immediate "bomb-ignition" areas, some 25 million acres of the nation's land was calculated to have been burned over.

Transportation, particularly via water, was severely curtailed by both bomb damage and radioactive fallout.

Moderate to severe damage in target areas put a critical demand on engineering equipment for debris clearance, improvised housing, bridging, and power restoration. Although 10 per cent of the nation's power was permanently "de-



Major General Emerson C. Itschner, the Army's Chief of Engineers, graduated from West Point in 1924 and from Cornell University in 1926. During World War II he was Engineer of Advance Section Communications Zone in Europe, and during the Korean conflict Engineer of I Corps. Since then he has been North Pacific Division Engineer and Assistant Chief of Engineers for Civil Works, being appointed Chief on 1 October 1956.

stroyed" and 20 per cent "damaged," there is enough emergency power to provide for essential recovery activities, FCDA reported.

It defies the imagination to attempt to relate directly the impact of such a catastrophe to known experience. The New England floods of 1955 created a situation which taxed to the maximum the resources of the affected area in controlling damage and restoring essential facilities. The atomic disaster represents an entirely different order of magnitude, thousands of time more severe both in its immediate and residual effects.

Certainly we must realize the severity of this threat to the very foundation of our national power. The capability of our civil defense structure to meet the threat also must be recognized as an important complement to our over-all military structure in the missile age.

Civil defense and national planning

During the past decade we relied mainly on the dominance of our strategic bombing capability to deter aggression and to secure victory if deterrence failed. We have learned from bitter experience in Korea and elsewhere that a defensive posture based solely on strategic airpower has limited value when applied to the wide range of possible military activity short of global war. Furthermore, our long-held dominance, even in this field, is now seriously threatened by rapid Soviet scientific progress. We can recognize more clearly than before the ever-present threat of a technological breakthrough by the other side—a breakthrough which could be exploited to tilt the precarious balance of strategic military power to Soviet advantage.

In facing this possibility, we must realize that the initiative rests with the aggressor. There is little doubt that the Soviets would use their dominance in strategic military power to impose communism on the free world—by nuclear blackmail if possible, by all-out nuclear attack if necessary. The margin of strategic military superiority the Soviet leaders consider necessary before embarking on an all-out offensive is, of course, a moot point. Lenin indicated how narrow this margin might be: "It would not matter a jot if three quarters of the human race is destroyed; the important thing is that the surviving quarter should be Communist."

In the light of these considerations it seems clear that an effective level of civil preparedness is essential to our national military planning in the uncertain period ahead. As a deterrent, it would give visible evidence to the Soviet leaders that no temporary ascendancy to military dominance could insure the total destruction of this nation's basic warmaking potential; it could provide a deciding increment of boldness in our international relations in the continuing Cold War; and finally, in the event of a nuclear Pearl Harbor, it could be the key to our survival.

The test of fire

Civil preparedness must be based on this final potentiality: an all-out nuclear attack, without warning, against our people, industry, and key military facilities. Our civil defense set-up must be reasonably sure that it can meet this test of fire. Anything less would contribute little to our Cold War strategy and could be disastrous if our planning failed.

One can only speculate on the nature and sequence of events in a war where nuclear weapons are used without

restriction from the outset. We cannot safely assume that the results of the initial nuclear exchange will be decisive in determining ultimate victory or defeat. It is far more likely that ultimate victory will still depend on seizing and dominating the source of the enemy's power: his land and his people.

To this end it is essential that we preserve for the post-attack period the essential elements of our basic warmaking potential: the will of our people to continue the struggle and the industrial capacity to support it.

Accomplishing this objective involves both pre-attack and post-attack measures, many of them directly or indirectly involving engineering resources and skills.

Pre-attack measures

The advent of the guided missile caused our civil defense planners to take a new look at the problems of shelter and dispersal. The limited warning time which might be available in a missile attack reduces the possibility of employing tactical dispersal or emergency evacuation as a defensive measure. As a result, consideration is being given to the possibility of some combination of shelter and more effective strategic dispersal to reduce our vulnerability to attack.

It would be inappropriate to make specific recommendations concerning these measures since they are being actively considered by our Government. However, it is important to point out that, as in every aspect of defense, the dollar sign is the all-important symbol. The requirements of passive defense supplement, not complement, those of active defense, and can only add to their cost. Actually, we do not know what an effective shelter and dispersal program would cost. Estimates for only the shelter protection of our civilians range from \$8 billion to \$30 billion. The protection of critical industry would undoubtedly raise the price. A sound dispersal plan could lower it. The immediate need is to determine what our real requirements are, regardless of cost. A sound evaluation of the price tag and whether or not we can afford it will then be possible.

Responsible Federal agencies

Pre-attack protective measures, however, can only minimize the effects of a massive nuclear blow. We still face the immediate problem of rising from the ruins and restoring a sound national base for continuing the conflict. Past policy has indicated that the problem is primarily solved at the local level. During recent years, however, there has been a steady increase in participation by all agencies of the Federal Government. Basic responsibility for post-attack planning at the national level is divided generally among three key government agencies: the Department of Defense directs the military defense of the Nation and related worldwide operations; the Federal Civil Defense Administration directs civil defense, relief and rehabilitation; the Office of Defense Mobilization directs the mobilization of our national resources for production, and allocates production to meet essential military and civil defense needs.

Action among these agencies in fields of mutual interest is governed by Executive directive. For example, FCDA can call on DOD for resources not required for the support of military operations; ODM can call on FCDA to restore those public facilities and utilities necessary to resume commerce and industry. Other Federal agencies in-

volved in planning or executing post-attack actions generally work through or under the direction of one or more of these basic organizational chains.

These general relationships among government agencies extend below the national level to regional committees that coordinate Federal activity at the local level. The result is a rather complex organizational structure but one in which nearly every Federal agency participates actively in preparing for post-attack damage control and recovery.

Requirements for engineering resources extend through nearly every phase and facet of this post-attack activity. Experience in natural disasters and our general knowledge of atomic effects enable us to predict the nature and scope of these engineering requirements.

Engineering requirements

Rescue operations and prevention of secondary damage must have initial priority. Debris clearance on an unprecedented scale will be required to open routes for evacuation, rescue, firefighting and other essential activities. Persons trapped in destroyed buildings or in shelters with blocked entrances must be rescued mainly with engineering equipment and skills. Emergency utilities must be supplied, emergency shelter provided, transportation bottlenecks cleared, and decontamination applied.

When a measure of control has been established after the initial shock, basic recovery operations can be begun. Again, major engineering effort is involved in restoring public utilities necessary to resume commerce and industry, to re-establish industrial plant capacity, and to provide a basic level of community facilities for housing and distributing goods and services to civilians.

Nearly all the requirements we have outlined, in both the immediate and later phases, apply to the military as well as to the civilian establishment. Damage control and recovery at critical military installations must follow basically the same pattern. Also, many basic civilian facilities such as roads, ports, airfields, railways, power, and communications, are directly essential to the conduct of military operations. Thus, from the construction point of view, there is no real distinction between the military and the civilian post-attack problems. Most of the necessary tasks are similar and the same resources must be tapped to accomplish them.

The greatest demand for a sustained construction effort will come during the restoration phase. It would be wholly impracticable to develop sufficient military units to meet more than a minor fraction of this demand. As in peacetime construction planning, we must depend on the construction industry to meet most of the military as well as the civilian requirements.

In a major attack, probably even these resources, extensive as they are, will support only the most urgent needs of the combined civilian and military establishments. If we are to apply these resources so as to attain the recovery rate necessary to insure ultimate victory, there are some specific fields that require additional attention.

Standards for construction

First, we must set both military and civilian post-attack goals and standards for construction which reflect a realistic appreciation of post-attack conditions. Our post-attack program must avoid any approach tied to the restoration of facilities in kind and in place. We must accept real

austerity as a matter of course. We must be prepared to accept, as well, major reorientation of the pre-attack pattern and geographic distribution of major elements of our civilian economy and of our military establishment.

Second, construction, like manpower and transportation, is a service basic to all elements of our post-recovery effort. It is highly unlikely that it will receive sufficient attention in planning and implementation unless we provide for its recognition as a vital force in mobilization and in post-attack recovery. This is not being done now. What we need is a definite focal point, at a high enough level in Government, from which to exercise overall policy control in this important field. In the Office of Defense Mobilization an Assistant Director for Construction could effectively serve this purpose. The Secretary of the Army has recommended to ODM that such an office be established.

Third, we must take careful stock of our engineering and construction resources and prepare detailed plans for using them effectively during an emergency. Action has been begun to reach this objective within the framework of the existing civil defense set-up. DOD is considering accepting a delegation from FCDA through which the civil works organization of the Corps of Engineers, under the Secretary of the Army, would supervise a nation-wide inventory of construction resources, and prepare plans for their utilization. If the plan is implemented, it will be a significant forward step in developing an effective mobilization of our engineering strength for the tasks posed by a potential atomic disaster.

Mobilize construction power now

Finally, it is highly probable that the multitudinous demands for construction support during the post-attack period would soon bring chaos to our construction industry unless recognized agencies exist for evaluating and handling these demands and controlling the use of construction resources. ODM is organized, and properly so, to control policy at the national and regional level. However, it is essential that we have an organizational framework, on a national and regional basis, to implement ODM's policy decisions, whereby work requirements can be evaluated for priority, essentiality, and uniformity of standards, and through which readjustments in employing our national construction resources can be directed.

The success of such an organization will depend upon its basic construction know-how; on its resourcefulness in tying together the diverse elements of construction manpower, equipment, and materials in order to obtain co-ordinated effort; on its ingenuity in improvising means of overcoming deficiencies in resources; and—perhaps most important of all—upon the establishment of pre-attack relationships with the construction industry based on mutual confidence and respect.

For these reasons, I believe that such an organizational structure must be established now—on a skeletal basis if necessary, but adequately staffed—in order to evaluate resources and requirements and to establish control and operating procedures. It should recruit volunteer reserves so that it can expand during an emergency and guide and assist local civil defense units.

The ability of such an organization-in-being to mobilize our national construction power and apply it effectively in recuperating the Nation after an atomic attack could be a major factor in our ultimate survival.

A last-ditch cry from the field

HOW TO GET OUT FROM UNDER THE PAPER

CAPTAIN DONALD R. FISCHER

I ALWAYS say that if people would refrain from voicing the obvious the silence would be deafening. So I voice the obvious and say that there is a tremendous waste of money in paper correspondence in the armed services. Operation Paper Chase was a step in the right direction and managed to eliminate some large hunks of waste, but its level of operation and its method of surveying were such that much paper waste still goes on.

While I've thought a lot about the Army's present paper distribution system, I hesitate to set down my ideas on paper, lest it add to the waste. Also I don't have all the figures I should have. But it occurs to me that rough estimates will establish my point.

I am an Army Advisor to a National Guard tank battalion. I estimate, without taking more time than it is worth, that about two hundred pounds of paper pass through this office yearly, and there are at least one hundred similar offices in the state in which I'm serving. This would indicate a rough figure of twenty thousand pounds of annual paper distribution within the Army Advisor setup in this state alone. Upon consultation with other unlearned, inexpert men of no authority, I arrived at fifty cents as the cost per pound of

distribution. This, I assure you, is low. My figures are not exact but are being used as comparative examples only. A little fifth-grade arithmetic indicates that this particular transmission of things on paper is costing ten thousand dollars annually.

I am using my Army Advisor Group as an example and not as an isolated case. In fact, some other outfits I have been in during the past sixteen years were a lot looser in their distribution. The main cause of extraneous paper distribution is the antiquated idea that an office must keep tons of reference material around on the off-chance that some infinitesimal portion of it may be needed in a hurry. I have at least a ton of paper in my office right now and haven't used one hundred pounds of it in the past year. I believe that this paper could be cut seventy-five per cent or more without impairing the efficiency of the operation. How to do it? I have some ideas about it. There may be some bugs in my system, and I'll freely admit that there are probably better ways, but I submit these suggestions for what they are worth and in hopes of stimulating some thinking towards a workable, money-saving system.

Enforce the "need-to-know" system now in effect. I don't know who decides what I need to know but I know that he doesn't know accurately because he never asked me and he evidently thinks that I need to know more than I actually do need to know. This I know because about ninety per cent of the poop received is either never needed or seldom needed for efficient operation. A questionnaire sent by Army Advisor Group headquarters to all

subordinate units would provide our "need-to-know" expert with a far better basis for future distribution.

Eliminate duplication. There is a National Guard office close by all the advisors' offices with duplicate files on many things. Why not use the same files? The walk to their offices would give us chair jockeys some much-

Captain Donald R. Fischer, Armor, was commissioned in 1943. A platoon leader with the 749th Tank Battalion, he was captured on his first day of battle in France, managing to escape forty-five days later. He has had various jobs including that of company commander.



needed exercise. A simple survey by the Advisor Group and the National Guard could coordinate their needs as to paper and eliminate this costly duplication. (Don't think that this is an isolated case either. I have been in regiments that had duplicate files in the same office. One set for the S2 and another for the S3.)

Extract pertinent data. I am continually receiving documents the size of *Gone With the Wind*, and somewhere tucked away in the middle of them is that one sentence that someone thinks pertains to me. I can't see the forest for the trees. The pertinent information should be extracted and forwarded to me, thus eliminating enough paper for a dozen full-length novels from my files.

Instead of distributing purely reference-type, hardly-ever-used poop on a

broadcast basis, establish a central reference library for it. Many of the ARs, SRs, circulars and other correspondence are used for reference perhaps once in three years, if ever. For example, I have two hundred pounds of FMs and TMs on hand. A few of the FMs I need, but I haven't used a TM in ages. The Advisor Group headquarters could keep a complete reference file, issuing a complete index yearly with monthly additions and changes. If a subordinate unit, such as myself, needed some pertinent data, they could request same by mail. In emergencies, which are more often mental than actual, Mr. Bell's telephone hasn't been outmoded.

If you keep out of my office and others like it all information that isn't "needed-to-be-known," is useless duplication, fails on the score of pertinency

and will hardly ever be referred to—you will achieve tremendous savings. Perhaps enough for another satellite, a moon rocket, or perhaps enough to keep a few officers from being RIFed. But it will take a change in our thinking at the lower levels, an effort on our part in our own little offices to eliminate as much paper as possible.

And now a word of warning. Any surveys or ultimate changes should be made internally at division or comparable level. If army or Washington gets into this, the cost of correcting the situation will offset the savings. There is no need to change existing regulations or create new agencies to make the surveys. Keep it simple and on the lower levels or there will be more paper issued because of it than we will save, thus defeating the end by the means.

1958 REUNIONS

- 1st Armd Div. 22-23 Aug, Kentucky Hotel, Louisville, Ky. Write Col. L. B. Conner, 1529 18th St, NW, Washington 6, DC.
1st Cav Div. 29 Aug-1 Sep, El Cortez Hotel, El Paso, Tex. Write Col. E. P. Stone, Box 201, Pomona, Calif.
2d Armd Div. 1-3 Aug, Sheraton-Gibson Hotel, Cincinnati, Ohio. Write Col. R. F. Perry, Box 172, Alexandria, Va.
2d Inf Div. 31 July-2 Aug, Congress Hotel, Chicago, Ill. Write Col. C. J. Hirschfelder, 214 W. Agarita, San Antonio, Tex.
3d Armd Div. 24-26 July, Waldorf-Astoria Hotel, New York City. Write Paul W. Corrigan, 80 Federal St, Boston 10, Mass.
4th Inf Div. 31 July-2 Aug, Henry Hudson Hotel, New York City. Write Iz Goldstein, 1276 E. 54th St, Brooklyn, NY.
5th Armd Div. 14-16 Aug, Hotel Roosevelt, New York City. Write Mrs. Clair E. Watrous, 8549 Lowell St, St. Louis 15, Mo.
5th Inf Div. 31 Aug-2 Sep, Henry Hudson Hotel, New York City. Write Lloyd A. Rader, 451 E. Clay Ave, Roselle Park, NJ.
6th Armd Div. 28-31 Aug, Hotel Roosevelt, New York City. Write Edward F. Reed, Box 492, Louisville 1, Ky.
6th Inf Div. 5-7 Aug, Denver, Colo. Write James E. Wittstruck, 4201 B St, Lincoln 10, Neb.
7th Armd Div. 15-17 Aug, Penn Sheraton Hotel, Pittsburgh, Pa. Write Johnnie Walker, 375 Valley Road, Haworth, NJ.
9th Inf Div. 31 July-2 Aug, Deshler-Wallace Hotel, Columbus, Ohio. Write Stanley Cohen, Box 66, Livingston, NJ.
10th Armd Div. 30 Aug-1 Sep, Hotel Statler, Boston, Mass. Write J. Edwin Grace, 108 Langdon Ave, Watertown 72, Mass.
11th Abn Div. 3 Oct, Hotel Ritz Carlton, Atlantic City, NJ. Write Louis Goren, 68 Lexington Ave, New York 10, NY.
11th Armd Div. 14-17 Aug, Hotel Lowry, St. Paul, Minn. Write Harry Walsh, 475 Cedar St, St. Paul 2, Minn.
12th Armd Div. 31 July-2 Aug, Sheraton-McAlpin Hotel, New York City. Write Lawrence E. Mintz, 4310 W. Buena Vista Ave, Detroit 38, Mich.
16th Armd Div. 8-10 Aug, Hotel Sherman, Chicago, Ill. Write James E. Austin, 100 Dee Drive, Linwood, NJ.
24th Inf Div. 15-17 Aug, Chicago, Ill. Write Edmund F. Henry, 402 First National Bank Bldg, Attleboro, Mass.
25th Inf Div. 25-27 July, Hotel Statler, Buffalo, NY. Write Lt. Col. Edward J. Callahan, Box 101, Arlington 1, Va.
27th Inf Div. 26-27 Sep, Hotel Van Curler, Schenectady, NY. Write Lawrence Reagan, Box 1403, Albany, NY.
31st Inf Div. 1-3 Sep, Morrison Hotel, Chicago, Ill. Write Walter A. Anderson, 4913 N. Hermitage Ave, Chicago 40, Ill.
32d Inf Div. 5-6 Sep, Grand Rapids, Mich. Write Edward T. Lauer, 8035 Stickney Ave, Wauwatosa 13, Wis.
34th Inf Div. 12-14 Sep, Paxton Hotel, Omaha, Neb. Write Junior F. Miller, Red Horse Armory, Des Moines, Iowa.
35th Inf Div. 19-20 Sep, Hotel Kansan, Topeka, Kans. Write Mahlon S. Weed, Box 1001, Kansas City, Kans.
36th Inf Div. 29-31 Aug, Hotel Texas, Fort Worth, Tex. Write CWO Archie H. McDugal, 523 Franklin Ave, Waco, Tex.
37th Inf Div. 29 Aug-1 Sep, Deshler-Hilton Hotel, Columbus, Ohio. Write Jack R. McGuire, Room 1101, 21 W. Broad St, Columbus, 15, Ohio.
38th Inf Div. Louisville, Ky. Write Walter Rickett, 520 St. Joseph Ave, Dayton, Ohio.
41st Inf Div. 18-19 July, Hotel Multnomah, Portland, Ore. Write Don Cunningham, 526 NW Broadway, Portland 9, Ore.
43d Inf Div. 5-7 Sep, Poland Springs House, Poland Springs, Maine. Write Joseph E. Zimmer, State Armory, Hartford 15, Conn.
45th Inf Div. 31 Oct-2 Nov, National Guard Armory, Oklahoma City, Okla. Write Richard M. Thomason, 2205 N. Central, Oklahoma City 5, Okla.
63d Inf Div. 1-3 Aug, Hotel Statler, Detroit, Mich. Write Robert C. Capasso, 34 Lincoln St, Norwood, Mass.
65th Inf Div. 19-20 Sep, Palmer House, Chicago, Ill. Write Albert J. White, 712 Highland Ave, Cannonsburg, Pa.
69th Inf Div. 22-24 Aug, Waldorf-Astoria Hotel, New York City. Write Irving Botkin, 278 First Ave, New York 9, NY.
80th Inf Div. 6-9 Aug, Hotel Kavanaugh, Harrisonburg, Va. Write M. H. Levine, 205 House Bldg, Pittsburgh 22, Pa.
81st Inf Div. 5-6 Sep, Sir Walter Hotel, Raleigh, NC. Write James E. Cahill, Box 1947, Raleigh, NC.
83d Inf Div. 21-23 Aug, Biltmore Hotel, Dayton, Ohio. Write George Cooley, 1549 Beechwood St NE, Warren, Ohio
84th Inf Div. Aug, Miami, Fla. Write Lee C. Allen, 3815 Westview NW, Canton, Ohio.
86th Inf Div. 30 Aug-1 Sep, Hotel Seelbach, Louisville, Ky. Write James B. Dickerson, 1049 Park Ave, Paducah, Ky.
88th Inf Div. 13-16 Aug, Penn Sheraton Hotel, Pittsburgh, Pa. Write Sidney Heyman, 2017 Forest Dale Drive, Silver Spring, Md.
90th Inf Div. 7-9 Nov, Oklahoma City, Okla. Write Samuel W. Fry, Tulsa County Courthouse, Tulsa, Okla.
91st Inf Div. 6-7 Sep, Fort Lewis, Wash. Write Archie Walker, Drawer 2219, Seattle 11, Wash.
94th Inf Div. 17-20 July, Hotel Manger, Cleveland, Ohio. Write A. E. Rodriguez, 1417 W. Addison, Chicago 13, Ill.
99th Inf Div. 18-20 July, Sheraton-Mayflower Hotel, Akron, Ohio. Write John E. Cummings, 3022 W. Cary St, Richmond, Va.
100th Inf Div. 5-7 Sep, Lord Baltimore Hotel, Baltimore, Md. Write Thomas C. Burdett, 114 S. Main St, Taylor, Pa.
101st Abn Div. 15-16 Aug, Sheraton-Gibson Hotel, Cincinnati, Ohio. Write Col. L. B. Conner, 1529 18th St, NW, Washington 6, DC.
104th Inf Div. 30 Aug-1 Sep, Schroeder Hotel, Milwaukee, Wis. Write Howard S. Bedney, 695 Hewlett St, Franklin Square, NY.
106th Inf Div. 25-27 July, Bellevue-Stratford Hotel, Philadelphia, Pa. Write John J. Gallagher, 4003 Frances St, Temple, Pa.

The choice is to withdraw or remain in place

ATOMIC WEAPONS IN CLOSE SUPPORT

COLONEL DALLAS A. PILLIOD

WHAT should a commander do when his forces are so closely engaged that the use of an atomic weapon on the enemy's foremost elements will result in unacceptable damage to his own forces?

He has two choices: either place the ground zero (GZ) of the intended burst or bursts far enough in the enemy's rear so that the effects will not endanger his own forces, or withdraw his own forces a safe distance and place the GZ directly on the enemy's forward positions. This holds true in defense as well as in attack.

If the commander elects to maintain his position, the actual distance ground zero must be placed behind the forward enemy positions will be directly proportionate to the proximity of the two forces. Atomic weapons thus employed will eliminate, or at least damage, enemy reserves, artillery, other supporting arms, and logistical support units. However, when the commander attacks, his forces will face an enemy in positions only partially damaged by the atomic weapons and probably suffering only the psychological effects of the nuclear explosions. The barbed wire, mine fields, obstacles, prepared positions, and other impediments in front of and through the positions will still be intact. The only benefit of the atomic weapon thus used is decreased effectiveness of enemy support and reserves. The major task of breaking the enemy's prepared positions must be accomplished by assault troops, tanks and supporting artillery. Although this is not an impossible task, it is always a difficult one.

A case in point was Operation Smack conducted by UN forces in the latter part of the action in Korea. The enemy position, located on high ground, was well known. United Nations troops had thoroughly reconnoitered the area and become familiar with the terrain. The preparation of plans was extremely elaborate. Supporting weapons were brought from far and near, well in excess of the number normally used in such an oper-

ation. The assault was preceded by intense artillery fire and air attack. Troops were carried to the very edge of the enemy position in armored personnel carriers supported by tanks. Then, still retaining their supporting fires, they launched the assault. Enemy supporting fires were insignificant. The operation had all the requirements for success yet the position was not taken. Why? Not through any failure by United Nations forces but because of the strength of the enemy's positions.

The other solution for the commander is to withdraw his forces a safe distance just before hitting the enemy's forward positions with an atomic weapon. If enough atomic weapons are available, it may be possible to strike the enemy's reserves and supporting units also. In the past, the objections to withdrawal in such a situation have been these: First, and supposedly most important, the loss of surprise if the enemy discovers the withdrawal; and second, the time required to return to the attack and pass through the enemy position.

Proponents of the "don't pull back" dogma claim that the enemy will discover any withdrawal and, thus alerted, take action to negate the effects of the atomic weapons. Analysis of such an argument logically breaks down into three basic parts: (1) the withdrawal; (2) detection by the enemy; and (3) enemy reaction.

The withdrawal

The withdrawal must be executed so as to make detection and attack by the enemy most difficult. The withdrawing forces have many advantages over the enemy which should be fully exploited. We know where and when the atomic weapons will be used and we know the terrain through which we will withdraw. We can notify all individuals ahead of time and lay on detailed plans. We can allow sufficient time for reconnaissance and selection of route of withdrawal; we can execute deceptive measures; and we can withdraw certain units early or reposition them in such a way that they can still support and yet be out of the danger zone. This would leave only a minimum force forward, to be withdrawn at the last possible moment. Such a plan would reduce the chances of confusion. The time of final withdrawal under normal conditions would be just prior to BMNT (Beginning of Morning, Nautical

Colonel Dallas A. Pilliod, Infantry, is presently Deputy Chief of Operations Division, Army Section, MAAG, Japan. He entered the Army as an enlisted man in 1940 with the Ohio National Guard, was commissioned in 1942 and commanded a battalion of the 81st Infantry Division in the Pacific during the Second World War. He was an instructor and member of the Academic Staff of CGSC from 1953 to 1956.

Time). The exact time at which troops would begin pulling back would necessarily be based on the distance they had to travel and the time of the atomic attack. Estimating roughly that the troops could move back one mile to one and a half miles in one hour, the time of withdrawal of final units would be approximately one hour prior to detonation. At this dark hour before dawn the enemy would have little chance of detecting the withdrawal in time for effective counteraction.

Detection

Of all the enemy's detection systems, patrols are most likely to detect and report the withdrawal. Assuming that enemy patrols will operate in much the same manner as ours, during the hours of darkness they will be moving, trying to penetrate our lines and observe our actions. However, like our patrols, they will try to reach the safety of their own lines before dawn. This means that an hour or two before daylight enemy patrols will be en route to their own positions and will not have our forces under close observation. Other detection devices and systems will be operating, of course, and some undoubtedly will report the withdrawal. What will the enemy commander do? The information will come through channels from somewhat doubtful individual sources. Place yourself in his position. Your first reaction is to determine the authenticity and reliability of the reported information. You will want to confirm it. Even then, one or two confirmed reports may not give you sufficient basis for making a decision. All this will take precious time, and will probably preclude any effective counteractions.

However, to explore the best possible conditions for the enemy and the worst possible conditions for our attack, let's assume that the enemy commander accepts the report as reliable, has confirmed it and is satisfied that our forces are withdrawing. The next question he must ask himself is: Why are they withdrawing? Is it to employ atomic weapons on my forward positions or is it for some other reason? Resolving this will require valuable time. If he correctly decides that our withdrawal is to permit the placing of atomic weapons on his forward positions, he must finally decide on a course of action.

One of the major factors affecting his choice of action is time. It has taken time to receive the information; time to confirm it; time to make a decision as to the reason for the withdrawal; time to decide on a course of action; time to relay the order to subordinate units; time to execute the order after it is received. It is impossible to reduce the time involved below a certain minimum. Since the enemy commander has no way of knowing the time selected for the atomic attack, he can only hazard a guess as to the time available for the execution of countermeasures.

The first course of action, one which has received the most attention by military theorists, is the use of "bear hug tactics"; that is, to stay close to the enemy. If he

pulls back, follow closely, so close that he can't attack you with his weapons for fear of hitting his own troops. History contains few examples of anything resembling "bear hug tactics." The best available is an operation from World War II wherein Allied forces withdrew to permit devastating air and artillery attack of the enemy's immediate front line prepared positions. A Leavenworth text describes this action in these words:

Operation Overlord, Allied invasion of Normandy, had two main objectives: First, to establish an adequate beachhead; and second, to break out of the beachhead. The second operation was given the name of Cobra. Operation Cobra was planned to be a quick power drive through the enemy defenses and then rapid exploitation. The operation was divided into two phases. Phase I would be initiated by intense aerial and artillery bombardment. Operation Cobra, after one postponement due to bad weather, was ordered for 24 July. Again, unfavorable weather caused postponement until 25 July. However, because of poor communications and the fact that many bombers had to leave their bases early in the morning, the decision to postpone arrived too late to cancel the entire bombardment. Over 700 bombers dropped 1,845 tons of bombs

History records few instances of "bear hug" tactics



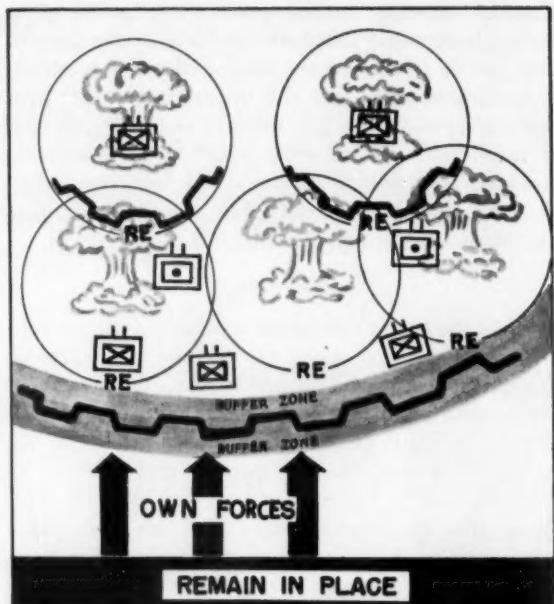
on the target area before they could be recalled. This false start had two major results: First it gave away the surprise that would have resulted if the Operation had taken place at the time planned and . . .

On 25 July the Operation was ordered. For the second time our front-line troops withdrew to the north of the target area. The enemy, taking advantage of his knowledge that the front-line troops would withdraw just before the bombing, followed closely, in many places escaping the full effects of the 4,900 tons of bombs. By 26 July, however, results of the air attack were becoming more apparent. Many enemy troops were stunned and dazed. Weapons not destroyed had to be dug out of the dirt and craters and cleaned before they could be used. Enemy wire communications in the target area were almost completely severed.

'Bear hug tactics'

There are a number of points to be made from this example. The distance withdrawn by our forces was 1,200 yards and the withdrawal took place at the "last possible moment." Enemy troops did not follow on the morning of the 24th, for even if they were aware of the withdrawal, they were not sure of the reason for it. It wasn't until they had seen the entire operation once through that they followed the withdrawing Allied Forces and then only "in many places." The records show that there were very few who had the courage to adopt the "bear hug tactics." Consider the plight of these forces in an atomic war. If there were the least delay in getting out of their positions and "hugging" the withdrawing forces, they would be out in the open and subject to even more danger than if they had remained in position. Further, how could they ever be sure we weren't trying to get them out of position in order to hit them with artillery fire? These factors notwithstanding, a major consideration is that even if they did follow our withdrawing forces, it would avail them little, for after the atomic attack they would be out in the open and without artillery support, since atomics would probably be used on supporting weapons as well. Breaking through such a force would be relatively easy. If, when our attack began, the enemy tried to withdraw to and occupy their former positions, they would find that "weapons not destroyed had to be dug out of the dirt . . . and cleaned before they could be used," and ". . . wire communications in the target area were almost completely severed." Contrast these combat conditions to "cracking through the shell," assaulting the enemy in his prepared positions and suffering only some shock effects and the loss of part of his artillery support and his reserves. Another factor is that if the enemy adopts "bear hug tactics," he will be unable to attack our withdrawing forces with atomics without destroying his own forces.

The second course of action open to the enemy commander, withdrawal of front-line units to the rear to avoid the atomic attack, is even more impracticable than "bear hug tactics." To order his troops to move out of position may well result in their being in the open, unprotected and exposed to the maximum effects of our



atomic weapons. Since the enemy commander does not know how many atomic weapons we plan to use or where (how deep) we plan to use them, he may withdraw his front-line forces to an area where we plan to use even more powerful atomic weapons. A further consideration is that by ordering a withdrawal he will permit our forces to accomplish their mission with only the threat of atomic weapons.

The third course of action, the easiest and the one most likely to be adopted, is to alert his units, ordering them to remain in position and take maximum protective measures. This decision can be disseminated rapidly and is the least risky. Units could be warned by a blast on a klaxon, by light signal or flare, by radio alert, or by any other immediate alarm system. This decision would provide the enemy troops the most protection and can be accomplished in time.

Loss of surprise

Look at the other half of the picture. Our forces have been withdrawn to a safe distance and atomic attacks have been made on the enemy front-line positions and reserves and supporting units. Immediately thereafter, our forces begin moving rapidly through their old positions and into the attack. Meanwhile we continue our artillery and air attack on the enemy. Because of the loss of surprise, at the time of the atomic attack the enemy will have taken maximum protective measures. As a consequence, his casualties will be fewer than if the attack had been a complete surprise. But the difference will not be as great as might be imagined. When tactical atomic weapons become standard to the battlefield, enemy units, as well as our own, will adopt a defensive standby position during most of the twenty-four-hour day and particularly during certain critical periods such as BMNT. Accordingly, when we launch

our atomic attack, forewarned or not, most of the enemy troops will undoubtedly be down in their holes taking the maximum protection against atomic attack. Only a minimum number of men will be above ground. Therefore the loss of surprise will have little effect on the number of enemy casualties.

Remember that in the foregoing example we have given the enemy every possible advantage. Realistically viewing the problem, we must remember the very considerable time lapse between discovery of our withdrawal and the execution of whatever action results. Actually, before the enemy commander has sufficient information to make a decision and issue an order, the atomic attack will have hit him.

Enemy recovery time

Another factor to consider in arriving at a decision to withdraw our forces rather than have them remain in place is the extent to which enemy forces can recover between the time of detonation and the time our forces can return to assault the enemy position. Is the time-lag long enough for the enemy to recover, move in replacement units, and present as effective a defense as he had prior to the atomic attack?

For general planning purposes it can be said that to be as safe, troops in the open must be twice as far from the ground zero as troops in foxholes. Thus, since our troops in foxholes were unsafe, if we remain in the open we must withdraw four to five times the distance between GZ and the original foxhole position. The exact distance required for troop safety will depend upon the size of weapon used and its radius of effect. If we use a three-kiloton weapon, our forces in the open must be approximately two miles from the GZ to be safe, and, advancing on foot after detonation, it would take them

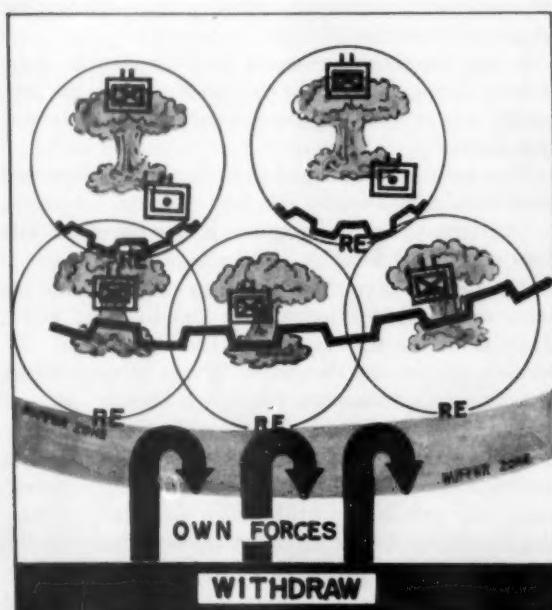
about one to one and one-half hours to reach the enemy positions. Troops in foxholes could stay within one mile of GZ and make the return trip in one hour or less. This gives the enemy little time for recovery. The time-lag need not be even that long. In addition to the most rapid method—helicopter transport—there are other simple ways whereby the time factor can be reduced, thus cutting the enemy's chances to rebuild his defense. First, since it would be difficult for our elements in contact to dig foxholes in the rear for use when they withdraw, a reserve unit could be brought up and ordered to dig in. At the proper time, units in contact could withdraw back through these reserve units—a sort of reserve passage of lines. When the atomic weapons were detonated, the reserve units would attack. The withdrawn front-line troops would become the reserves. An additional advantage of this maneuver is the security of having a second defense line in case the enemy adopts "bear hug tactics" or uses atomic weapons on our withdrawing forces. Terrain permitting, another solution to the time factor would be the withdrawal of troops to a defiladed position in rear of the present position which would provide the same degree of protection as foxholes. As in the previous example, this would permit our forces to stay approximately twice as close to the GZ as they could if they were in the open. It may be possible, depending on the road net and the terrain, to move attacking units in personnel carriers.

Since troops in tanks have the same degree of protection as troops in foxholes, tanks can be in the same general area. As soon as the atomic weapons are detonated, troops can ride the tanks to the assault. Motorized troops would follow closely.

These are only a few of the measures that can be taken to reduce the time available for the enemy to recover from the effects of atomic weapons. And, since atomic weapons will be used throughout the width and depth of the enemy defense, it is improbable that he will make any significant recovery prior to our assault.

To sum up, the commander who wants to use atomic weapons while in contact with the enemy has to decide whether to withdraw or remain in place. As we have seen, if he does not withdraw, he faces an assault on an undamaged enemy force in a prepared position, a costly assault which may not succeed, and, even if successful, may allow the enemy enough time to recover from the aftereffects of the atomic attack on his rear areas. But if the commander chooses to withdraw, the enemy will probably remain in place. If the withdrawal is discovered, the effects of the loss of surprise will be relatively minor. The time required to return to the attack can be reduced to an insignificant minimum, thus allowing the enemy little time for recovery.

In conclusion, then, the best decision for a commander faced with such a situation would be pull his forces back to safe limits and hit the enemy on the nose with atomic weapons.





You Can't Push Rope

Master Sergeant Forrest K. Kleinman

THE instant he heard the terrible whisper approaching like a jet of live steam, Second Lieutenant John Blake knew without reflection what his next actions should be. They were neatly tucked away in the mental file of battle scenes he'd rehearsed many times on his way to the front and during the two days he'd been here.

This was the scene where, after coolly lighting his cigarette, he would grin reassuringly at his men crouched around him. After the shell had burst about sixty yards away, he'd pick up a fragment, examine its jagged edges, and say drily, "A very inferior grade of metal." Or perhaps he would think of something *really* funny when the time came.

They hadn't taught him this about combat leadership at OCS. But Blake's favorite instructor at Benning dramatized the subject one day with a long piece of rope. "I want a volunteer to move it across the parade ground—by *pushing* one end."

Blake stepped out and tried, then laughed with the rest as the rope buckled into loops around his feet. "Didn't get very far, did he?" the instructor pressed his point home to the snickering ranks. "Now show us the right way, Mister Blake."

Blake picked up the loose end and started across the parade ground with the rope trailing behind him. "Right!" boomed the instructor. "And your platoon is just like that rope. Lead it and it will follow you anywhere. . . ." He paused, eying them solemnly. "But no one can teach you how to take hold. That's up to you."

Blake met his platoon four months later on a wind-swept hill west of Heartbreak Ridge—a loose-jointed crew with the casual stare of men who'd seen second johns come and go. He knew they weren't buying any-

Master Sergeant Forrest K. Kleinman, on duty in the Information Section of USCONARC, served in the 3d Infantry Division in World War II and was a major in Korea. This is his seventh contribution to ARMY.

thing yet. They'd wait until he tried his gold bar for size.

Blake didn't let them wait long. Next morning he took Sergeant Jenson's squad to patrol the south bank of the river that snaked through no-man's-land. The company commander had said to *send* a squad for a look-see, but Blake *led* it—out in front, ahead of the scouts.

The first shot came from nowhere and kicked up snow at Blake's feet. The squad melted into the frozen rice paddy behind him and waited, tense, eyes fixed on him. He stood erect, scanning the white expanse to the bald gray ice of the river. His heart pumped like a machine gun, but his mind was very cool, very confident.

It was all so familiar: the first shot, the quick search for the enemy. He'd rehearsed this scene a thousand times. All he needed now was a cue.

A bullet cracked by his ear, screamed off the frozen ground, and he had it—the flash of a rifle on the river bank. He raised his arm. Signalling "Follow me!" he plunged ahead, screaming exultantly, finger hard on the trigger of his carbine.

It was the shining moment he'd foreseen in every waking dream: He was the man on the poster, the hero on the screen, charging the enemy while his weapon spat death.

The men of the squad lay on their bellies and watched him go.

"Awright, you guys," Sergeant Jenson growled. "The man said follow him."

The squad moved then. The men came up from the snow in a ragged skirmish line and followed Blake. They knew the patrol's mission hadn't called for this reckless charge, and they were cursing between bursts of fire from their weapons. But they followed.

The little men in the quilted uniforms are strange. They'll file into the muzzle of your machine gun like ants to a sweet, or pave a road through your minefield with their own flesh. But this time they ran—ran from this handful of Americans led by the crazy one with the bright gold bar on his helmet.

Blake crouched on the river bank, still firing, until

Sergeant Jenson seized his arm. "They're out of range now, Lieutenant."

Blake turned to the squad, laughing. "Look at 'em run!"

The men looked at one another, then impassively at him. No one spoke for a long moment, while the wind keened along a snow drift and subsided. Finally, Sergeant Jenson shifted his wad of tobacco and said: "Usually they don't run, Lieutenant. You should have had it!"

"I'm wearing bulletproof underwear," Blake said, hoping for a laugh. But the squad only eyed him in uneasy silence.

Sergeant Jenson spat into the snow. "We don't have bulletproof underwear, Lieutenant," he said grimly. "We have to depend on you."

Blake's spirit sagged. He hadn't imagined such an ending to his first big scene. He'd thought there'd be grins, congratulations, maybe a word about guts. *What does it take?* he wondered bitterly.

Conscious of their taut, unsmiling scrutiny, he fished out a cigarette to mask his disappointment. The match was almost to it when he heard that terrible whisper like a jet of live steam. . . .

It was the first time he'd heard the sound since the overhead artillery course at Benning, but he recognized it instantly and knew without reflection what his next actions should be. Coolly, he drew his match to the cigarette and took a puff. He was about to turn a reassuring grin toward the men around him, when suddenly he realized with stark horror that something had gone wrong.

The whisper had multiplied with incredible speed and crescendoed into an avalanche of flying steel. In the scene he'd rehearsed so many times, there'd been only *one* incoming shell. This sounded like all the Red shells in Korea!

Some time during the ghastly moment of comprehension, Second Lieutenant John Blake's body ceased to belong to him. A swift, imperious stranger seized control, plunged him head first into a snow drift.

When Second Lieutenant John Blake resumed command, he had snow down his neck and a sickening realization that the stranger had betrayed him. Flying steel still hissed overhead, but the *crump* of the first bursts was muffled by more than a mile!

"Some nose dive you took, Lieutenant," an amused

voice said. "You all right?"

Blake poked his head out of the snow and looked up at Sergeant Jenson's grinning face. "Yeah, I'm all right," he said heavily.

The whole squad watched him emerge from the drift, and there was nothing impassive about their faces now. They grinned so widely their back teeth showed.

"That was *outgoing mail*, sir," Jenson said, mouth curled, "clobbering those Chinks."

Blake looked at the smirking, knowing faces, and he knew now was the time for the glib remark—the twist to toss it off as a joke. But he couldn't think of a single line. He wasn't prepared for *this* scene. He turned blindly and walked away.

Back on the hill, Blake went straight to his foxhole and lowered himself out of sight to be alone with his shame. You'll never live it down, he flayed himself. By tonight, the whole platoon will be laughing at their new second john who dived into a snow drift first time he heard his own artillery go by!

It was almost dusk when he finally looked up and saw Sergeant Jenson's squat figure hunkered down by the foxhole. Jenson cleared his throat loudly.

"What is it, Sergeant?"

"The platoon got boodle in the mail from home today, sir." Jenson lowered a piece of cardboard into the foxhole and Blake saw a thick wedge of chocolate cake and a big cigar.

"No, thanks, Sergeant, I'm not—"

"It's from the men on patrol with you, sir," Sergeant Jenson interrupted quietly. "With their compliments."

A quick glow warmed Blake, only to die at the thought that the men felt sorry for him and were expressing it in this way. "I guess they thought I looked pretty silly today—diving into the snow like that."

"They were glad to see it."

"They were what?"

"I said they were glad to see it. The whole platoon is."

Blake stared suspiciously at Jenson's gray eyes, but found only candid warmth. "You see, Lieutenant, we were kind of worried about you 'til then. Way you started out, we figured you for a glory grabber. We like guts, but we like common sense too. That's why we were glad to see you had enough sense to duck artillery."

"Even if it was our own?"

"It fools 'em all the first time."

"I guess I'll learn," Blake said, his heart lifting.

"Sure you will."

They looked at each other, man to man across the rim of the foxhole, and suddenly Blake knew he could toss all the other scenes away. You don't need melodramatics when you belong to your platoon!

When Sergeant Jenson had gone, Blake ate the chocolate cake to the last rich crumb. The cigar he carefully wrapped in the cardboard and slipped it into his shirt pocket to keep for a few days. He'd never smoked a cigar in his life, but he knew he would enjoy this one. It ought to have all the aroma of a piece of well-seasoned rope.





On 14 June at a special dedication ceremony highlighted by an address by Secretary of the Army Wilber M. Brucker, the Smithsonian Institution in Washington, D. C. opened its new Hall tracing the development and the achievements of the Army from the Colonial Militia of the 17th Century armed with matchlock and flintlock, to the present-day Pentomic Army equipped with a modern family of rockets and missiles. The Smithsonian project was carried out in close cooperation with the Department of the Army's Chief of Military History, and many of the weapons and other relics used in the striking showcase displays were transferred to the museum from Department of Defense sources. As a part of the dedication ceremonies, the 1st Battle Group, 3d Infantry, paraded on the Mall near the Smithsonian.

THE ARMY'S MONTH

(Continued from page 24)

determine whether or not they are required to be in existence now in order to meet the mobilization schedule approved for implementation in time of national emergency. All this is in line with current military planning looking to the reorganization of all the armed forces in accordance with the realities and requirements of modern warfare.

As planned, the reorganization program would be phased over a period of approximately two years to avoid the confusion of involving the entire

Guard and the Reserve in the reorganization at one time. Consequently those divisions scheduled to be ready early would receive priority consideration in the reorganization.

Though the revised plan differs considerably from its earlier counterpart, both plans were, in large part, in response to constantly mounting demands upon the military establishment in a critical period in defense preparations, and to a parallel necessity of getting the most out of the defense budget.

Some spokesmen for the National Guard hold that creation of three-battle-group ("tritomic") Guard divisions would have the effect of "skeletoniz-

ing" existing Guard divisions, in addition to eliminating entirely smaller Guard units. They also say that, contrary to the avowed Army goal of bringing the Guard divisions to modern combat readiness, the new "tritomic" divisions could never be considered combat-ready, nor could they be effectively employed minus the other two battle groups inherent in active Army divisional structure.

The attitude of the USAR toward the reorganization plan can be summed up simply. The USAR is not only willing to go along with the Army plan, but is in fact going ahead with plans for the reorganization on its own.

It may well be that the Army feels that the three-battle-group organization contemplated for the National Guard and Army Reserve is realistic and in keeping with the current strength of the Guard divisions. To expand a three-battle-group peacetime division to a five-battle-group division in emergency mobilization is not alien to the traditional pattern of "beefing up" understrength units after mobilization. While doubtlessly it would be desirable to pattern divisions strictly after those of the Pentomic active Army, additional money would be required.

While it is not difficult to appreciate the criticism directed at the Army's reorganization plan, it should be clearly understandable that the Army, caught between the pincers of expanding responsibilities and a tightened budget, is doing its best to match what should be done with what can be done financially at this time.

Reorganization legislation

Until the Senate acts, the final form of the legislation to reorganize the Department of Defense remains uncertain. Though the House version of the legislation does not satisfy President Eisenhower, it does provide the unified strategic and tactical planning and control of operational forces that he deems essential, it gives him centralized control over research and development, and it clarifies the power of the Secretary of Defense and the role of the Joint Chiefs of Staff.

The President's objections are all in the area of administrative control and direction of the services, and his desires in this area are in conflict with the Resolution of the AUSA. The bill passed by the House meets the objec-

tives of the AUSA resolution. Briefly stated, the President wants to eliminate the requirement that the services be "separately administered." He wants to make it simpler for the Secretary of Defense to reassign, abolish, transfer and consolidate functions. He wants to eliminate the authority of each service Secretary and Chief of Staff to bring to the attention of Congress decisions of the Secretary of Defense that he deems dangerous to the security of the nation.

All these points were discussed in the May issue of this magazine and do not need repeating now. Meanwhile, it is necessary to await action by the Armed Services Committee of the Senate. If its bill is in conformity with the bill passed by the House, it seems probable that the President will not get all he wants. However, if the Senate bill should include the President's provisions, a hard legislative fight can be expected.

One additional note on the bill passed by the House. An amendment offered by Rep. McCormack (Dem., Mass.) and adopted, provides that the Secretary of Defense may assign responsibility for any common supply or service activity to a single agency or organization. This power, if finally enacted, could be exercised to such a degree as to make a rearrangement of combat functions necessary. If this is so the amendment should be carefully reconsidered.

Army General Store

An Army General Supplies Commodity Center, established at Richmond Quartermaster Depot, has responsibility for supplying the Army with general housekeeping items such as kitchen equipment, canteens, mess gear, typewriters, office supplies, printing equipment, depot operating supplies and field laundries. This is another move in the direction of organizing on a commodity rather than a functional basis.

Enlisted Technical Schooling

A pioneer group of some 50 enlisted men selected for training under the Enlisted College Educational Program are now enrolled at Purdue Technical Institute and Milwaukee School of Engineering. They will attend school for two calendar years and will take a course in the Guided Missiles and Special Weapons Technician Field (Electronics Technology Curriculum). Pur-



Maj. Gen. Robert V. Lee, nominated to be The Adjutant General

Brig. Gen. Paul A. Mayo, nominated to be Chief Finance Officer



pose of the training is to provide the Army with a hard core of highly-trained career specialists and noncommissioned officers.

10th Becomes 2d

The 10th Infantry Division was inactivated and the 2d Infantry Division reactivated on 14 June at Fort Benning. The 10th pioneered Army Operation Gyroscope when it was selected to be the first stateside division to rotate to Germany, exchanging duty stations with the 1st Infantry Division in 1954. The 10th served in Germany from 1955 until 1958, when it exchanged duty stations with the 3d Infantry Division at Fort Benning. The 10th won its fame in World War II as the Army's only mountain division. The "Second to None" Infantry division has a history that goes back to World War I.

Officer Strength Held

No involuntary "reduction-in-force" releases of Reserve officers are anticipated by the Army in Fiscal 1959. At the end of Fiscal 1958, the active Army expects to have 105,000 officers and warrant officers, compared with 100,100 programmed for the end of Fiscal 1959. Reduction in officer strength will come from normal losses and reduced procurement. The Army led efforts to set aside the requirement for involuntary releases arising from strength reductions made by the Department of Defense in 1957.

Army Takes a Bow

A recently issued DA Pamphlet (DA PAM 355-10) asserts that the new Army green uniform is a well-styled and accurately-tailored uniform; that its basically good design will contribute to the soldierly appearance of both its officer and enlisted wearers.

The truth of this assertion is confirmed by the English newspaper (*The London Daily Sketch*) which recently reported:

The presence of the Queen and the Duke of Edinburgh didn't stop officer students from coming out with some pretty hot criticism of [British] Army recruiting at the Staff College, Camberley.

They'd been asked to speak their minds. Thus there followed an argument about the accuracy of the poster which boasts: "YOU ARE SOMEONE IN THE ARMY TODAY."

Up jumped a captain. "This is my best suit," said he.

He was wearing a baggy battle-dress.

He pointed to an immaculately-dressed American officer opposite.

And said: "That man there is somebody in somebody's army."

The American stood up and bowed. And the Duke of Edinburgh laughed.

General Officer Shifts

Maj. Gen. WILLIAM M. BRECKINRIDGE to Eighth Army . . . Maj. Gen. EUGENE F. CARDWELL to USAREUR . . . Maj. Gen. JAMES DREYFUS to OJCS . . . Maj. Gen. OLAF H. KYSTER, Jr., to 5th Region, ARADCOM . . . Maj. Gen. EMIL LENZER to USA Electronic PG . . . Maj. Gen. HUGH MACKINTOSH to USA Military Subsistence Supply Agency . . . Maj. Gen. HENRY F. MCKENZIE to Sixth Army . . . Maj. Gen. JOHN B. MURPHY to OCSA . . . Maj. Gen. SAMUEL L. MYERS to ODCSLOG . . . Maj. Gen. OTTO L. NELSON, Jr. (Ret.) to Special Assistant to Secretary of Defense . . . Maj. Gen. AUGUST SCHOMBURG to Deputy Chief of Ordnance . . . Maj. Gen. STUART G. SMITH to Letterman AH . . . Brig. Gen. IRVIN L. ALLEN to ODCSLOG . . . Brig. Gen. CYRUS A. DOLPH, III, to MAAG, Vietnam . . . Brig. Gen. SAMUEL E. GEE to Camp Irwin, Calif. . . . Brig. Gen. JAMES P. HANNIGAN to USATC (FA), Fort Chaffee . . . Brig. Gen. ELMER P. HARDENBERGH to Army Council of Review Boards . . . Brig. Gen. WILLIAM H. HARRIS to OTAG . . . Brig. Gen. HAROLD G. HAYES to OCSIGO . . . Brig. Gen. STUART S. HOFF to Eighth Army . . . Brig. Gen. RALPH T. NELSON to OCSIGO . . . Brig. Gen. GEORGE T. POWERS, III, to Ryukyu . . . Brig. Gen. HERBERT L. SCOFIELD to OCSIGO . . . Brig. Gen. CLEMENT F. ST. JOHN to Brooke AH . . . Brig. Gen. CHARLES F. TANK to Eighth Army.

Retirements. Maj. Gen. OLIVER P. NEWMAN . . . Maj. Gen. JAMES R. PIERCE . . . Maj. Gen. ELWYN D. POST.

THE MONTH'S CEREBRATIONS

THE COMMANDER AND HIS SPECIALISTS

CWO A. T. WEGENKA

For years regulations have directed that staff officers detailed to handle special functions such as records management, safety, transportation, insurance officer, and so on, be designated in orders, and that in many cases these specialists must report directly to the commander. As a result, in very small units an officer can acquire so many titles that the practice has become absurd. Remember the report in *Stars and Stripes* about how in Korea some officers wore nineteen or twenty hats? It must have been confusing indeed if they had to sign correspondence for each of their capacities. It seems more sensible to restrict titles to full-time functions, and where the duty is an additional one, merely to include responsibility and authority for it in the functional statement of the officer. However, the effect of this practice may not be too serious if it reminds the specialist of his responsibilities. But it has led to a far more serious condition.

When a staff specialist directs subordinates he not only encroaches on the commander's prerogative but creates an unfavorable management climate. The commander, if he abides by the regulation, takes one of these courses:

(1) He devotes a disproportionate part of his time to auxiliary specialized functions, to the detriment of mission responsibilities.

(2) He more or less ignores the specialists, leaving them to operate under little or no supervision. In such a climate either too much or too little of his command's resources is devoted to a particular auxiliary function, depending on the strength and zeal of the specialist.

(3) In attempting to satisfy the letter of the regulation and yet arrange his management time in a reasonably logical fashion, he circumvents its spirit through devious and confusing organization charts.

(4) He organizes according to good management principles, appointing a vice president in charge of "must" auxiliary services who stands between commander and specialists and thereafter defends himself courageously against all inspectors.

When reorganization is needed in a field where laxity has been evident or where its importance has grown, the thoughtful, dynamic higher commander establishes a special staff group to bring that activity into its deserved place. Being a good manager, he chooses a man thoroughly imbued with the importance of his field, a positive thinker enthusiastic about his promotional activities and persevering in his insistence on recognition of his field.

At this stage the commander is wise in the ways of management. But what happens later! The headquarters above his becomes peopled with specialists who single-purposedly see to it that only what they feel is right in their particular fields is done at lower echelons. No half measures are tolerated. Every field commander must have as adviser a counterpart of the higher headquarters specialist, who must see to it that he, the commander, enforces all the desires of the senior specialist in the Pentagon. The list of specialties grows and grows; the "reporters direct" soon overwhelm all but the most durable commanders.

The theorists insist that the trend

can be stopped by the top commander whose job, after all, is to regulate, control and coordinate the activities of his staff. He has the power—yea, the responsibility—to decide how his resources will be expended. If he is worthy he curbs the overzealous and rouses the lethargic so that all activities are finely balanced and expenditures nicely proportioned. But he is human.

The specialist believes wholeheartedly in his mission. His reputation and self-esteem hinge on the magnitude of his specialty in the galaxy. He wants recognition as an outstanding man. He becomes a topnotch salesman, and it's hard to resist him. Besides, when you give a man a job to do you must back him. Then, too, taken singly, the recommendations of the specialist are not very difficult to implement, making it easy for the commander to approve projects presented singly even though the commander may have misgivings as to essentiality. Over a period these little jobs develop into formidable tasks. At the time each is proposed it may be accomplished with no additional personnel, but we kid ourselves if we believe it can be added without cost. Eventually an additional person is working on one or a group of these tasks. It's like in school. Each instructor assigns a little extra work which to him seems quite reasonable; it is if only *his* subject is considered. However, by the time all instructors have assigned their daily "reasonable" amounts of work the student is loaded, and wonders how he can possibly do it all.

In the field, particularly in TD and administrative units, it's a good idea to lump together these auxiliary services which have only incidental relationship to the basic mission and to place them under a vice president in charge of odds and ends. This VPCOE should do the "direct reporting" for all specialists under him, thereby providing the commander with a man who is close to the affairs of the specialists yet has broad enough responsibilities to see the over-all relationships. This vice

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president can give the commander a better perspective of his specialists and is less likely to favor any auxiliary service.

The commander can move farther toward his goal of management by exception. If his vice president screens out routine and less important problems, the commander need not see or hear of them.

In many cases, this plan will provide the specialists a champion at court and assure proper attention to their activities. The harassed commander, beset by problems pertaining to his mission activities, will have little time for the auxiliary services unless their affairs are screened and condensed before being presented to him. Unless this is done, he will listen to only the more vociferous of his specialists—or to none.

Another workable solution is to make already existing major elements responsible for these specialists. This can be done even though a particular specialty has only a vague relationship to the basic function of the major element. This scheme in a smaller way has some

of the disadvantages of "reporting direct," the principal one being that the specialty may receive little attention from the official assigned to it.

Regulations should never define the exact reporting relationship between staff specialists and commander. That relationship should vary according to the size and complexity of the unit and according to its basic missions. The commander must be responsible for the function, but he must not be told how he must organize to accomplish it. Inspectors have been known to be more concerned with reporting channels than with the effectiveness of functions. Commanders will be criticized for deviating so long as regulations specify reporting channels within lower echelons, even though the function in point is performed admirably.

An alternative sometimes recommended and adopted to relieve commanders of trivia is to have the specialist report routine administrative matters through the commander's subordinate, and his specialty functions directly to the commander. On casual examina-

tion this seems to be a happy compromise, but from the viewpoint of good management it is a travesty. Line of authority is confused and complicated; the official in the chain for routine administrative matters has little interest in whether the specialist is furnished the wherewithal to do his job; the specialist has two bosses; the question of extent of authority constantly arises. In event of failure by the specialist, the official in the chain for routine matters is held responsible even though he had no authority to supervise the action. In self-defense, the official in the chain usually assumes authority not actually delegated to him and often the result is a sticky personnel problem.

Chief Warrant Officer Anthony T. Wegenka is adjutant of the San Francisco Ordnance District. A veteran of twenty-six years as enlisted man, warrant officer and officer, he served in Army Service Forces headquarters during World War II and in a surgical hospital in Korea.

BASIC LOAD AND BATTLE JACKETS

CAPTAIN DONALD N. GOWER

Over the past decade two types of articles have appeared frequently in military publications, articles which, although closely related, never quite seemed to get together.

In one we see the soldier of Futurearmy wearing a gasproof, germ-proof, bulletproof, light-weight, slick-surfaced suit of armor, whose only disadvantage is its resemblance to a Buck Rogers costume. In the other type article, down-to-earth planners strive to reduce the basic load of the infantryman by every means imaginable from aluminum hand grenades to balsa wood rifle stocks. Both types of article are commendable and, if combined, could produce excellent results.

Planning combat gear for the individual soldier usually starts with a man in his field jacket, adds equipment as sparingly as possible, and winds up with a pretty fair looking basic load. Just before the soldier is committed in actual combat, however, he is given a bulletproof vest which is not made to be worn under all this equipment, and he picks up four grenades, two bandoliers, and a cardboard box of rations. All of this is jammed in or hung on

wherever he can find room. The result is far from ideal. Let us start planning combat gear with a different approach.



In designing a battle jacket for the immediate future let's not begin with the present field jacket. Leave it in garrison. Begin with a bulletproof vest and build on it. From here on everything fits into place. The vest should be about as long as a field jacket and have a high collar to protect the back of the neck up to the helmet. It should also have shoulder flaps to protect the outside of the upper arm. Now we have a bulletproof, short-sleeved jacket.

The innovations are added to this basic jacket. On the front, from the middle of the chest to the bottom of the jacket, are bullet pouches. These will hold bullets, cigarettes, oil can and patches. On the side, over each hip are larger pouches. For a soldier the right pouch will hold grenades, for an officer, binoculars. The left pouch will take care of the canteen.

Above each hip pouch is another about the same size for the gas mask on one side and toilet articles, extra ammunition, or more grenades on the other. High on the chest, above the bullet pouches, are two large, flat pouches for the first aid kit, message books, wallet, pencils, and the like. There are additional small all-purpose pockets on the shoulder flaps.

The back of the battle jacket has loops to hold the intrenching tool and the bayonet, and a pouch across the tail in the back is large enough to carry the contents of a food packet. There are several pairs of straps which can be used to tie on additional loads, such as a bedroll, a poncho, thermos boots or a sweater.

If we stop here and don't add to the complexity and the cost by the addition of pocket radios, batteries, wiring or heating, we have a jacket which is easy and cheap to produce and has a number of advantages over the present basic combat gear.

First, a soldier in a battle jacket is ready to go to battle. He dons one item, and he has everything. Secondly, we have eliminated the field jacket, the cartridge belt, the canteen cover, the first aid pouch, the cargo pack, combat pack, the pack suspenders, and intrenching tool cover. While the battle jacket has some of this web and can-

vas material sewed on, some weight savings still exist. A third benefit is equal distribution of weight upon the individual. No pack straps or overloading cartridge belt to cut into a man's shoulders or gut. A fourth and important benefit is increased protection. Everything the man carries is distributed uniformly about him, reinforcing the existing body armor. The final few advantages are found in the slight simplification of supply items now required under TA 21 and in a possible morale boost.

Naturally, a few questions arise. How can a BAR man use the rifle pouches? Answer: there must be three different styles for men armed with carbine, M1 and BAR. The new rifle to replace all three of the old weapons will allow return to a single style of jacket.

How does a man keep cool in summer and warm in winter? Answer: in summer he wears the jacket over a

summer undershirt. In winter he wears the jacket over a winter undershirt, a pile liner, and some sort of pocketless, windproof and rainproof light jacket, such as a ski jacket. The ski jacket could be worn in summertime, without liner, when it rains. If necessary a few air holes could be placed in the basic jacket to dissipate body heat on hot days.

Basis of issue? One per soldier. What about rear-echelon soldiers? They wear the jacket until they are far enough to the rear to be safe from air and atomic attacks. When they get back that far in the next war, they can wear dress greens.

Captain Donald N. Gower, Artillery, was an artillery forward observer in Korea and later a radar test officer on CONARC Board No. 4. More recently he has been a battery commander and is now assistant G3, 3d Armored Division.

SOCIAL IMPACT OF DEPENDENTS' ALLOWANCES

COLONEL SHILLELAGH

Before World War II, the military services paid dependent allowances only to officers in the second and higher pay periods, and to enlisted men in the top three grades. This policy recognized the career attractiveness of the upper enlisted ranks and presumed that lower grades would be kept filled by the transients.

Under the Selective Service laws of

World War II, dependents' allowances were extended to everyone in uniform. This was the necessary and appropriate result of the induction as privates of men having one or more dependents. It was part of a compulsory, selective service.

The dependents' allowances laws of World War II still govern the military services. Whether these laws are suitable for our armed forces and the Nation today is questionable. Issues of

economy and efficiency, of equity and social policy, are involved.

Selective Service can still induct men up to the age 31 limit set for World War II. Is this provision wise for peacetime? It would appear that the requirements of the armed services are best met during the early adult years (18 to 22) and that a man not called during this period should be exempted from the draft unless earlier service has been deferred at his re-

FROM HORSEFLESH TO WHIRLYBIRDS: The 4th Field (Mule Pack) Becomes 4th Field (Helicopter Pack)

These pictures show the Army's continuing test of flying a six-gun 105mm howitzer battery completely by helicopter. This "airphibious movement" means more than merely transporting a gun tube by helicopter. That has already been done, in combat and in demonstrations. The airphibious plan moves a whole battery, with its own logistical support.

This is a particularly big step in transportation facilities for the 4th FA Battalion (Helicopter Pack)—until last year the Army's last mule-pack outfit—which provides the firepower for the airphibious training unit. The chief advantages of using helicopters rather than trucks are increased speed and mobility, and easier access into isolated areas.

Lt. Col. Peter J. O'Rourke is in charge of the trial program. The elements of the airphibious training unit at Fort Sill are the 4th FA Battalion, the 54th Helicopter Transportation Company, and the 154th Transportation Maintenance Detachment. Together, the three are officially designated 4th Airphibious FA Battalion. Movement requires twenty-one machines: twelve carry the howitzer sections, three are needed for the advance party and three move the radio-equipped jeeps, two move the forward observers, and the remaining copter carries the liaison officer and his group. These twenty-one copters transport 103 men, gun crews riding in tube-bearing craft; only those which carry carriages have no passengers.

In loading, a soldier in the door of the H-34 relays instructions from men on the ground to the pilot



quest. Selective Service should not be allowed to call up more mature men unless specifically authorized in an emergency by Congress. The draft requirements are very different from those of World War II.

Today we are for the most part inducting young men in the 18-to-20 age bracket. The service obligation faces every man in that group, and he should plan to discharge it before beginning his life work as a citizen in his community.

It seems desirable for a young man to discharge his service obligation and establish himself in his career work before marrying. Certainly he would then be taking a bride under conditions more conducive to marital stability and felicity. If he marries before discharging his obligation, he may find that the trials of his service period are hard on romance.

By providing dependents' allowances to young trainees, we encourage

early and hasty marriages of young couples with no settled livelihoods. We offer pay which they receive only if they do marry. We make young men the fair game of designing girls who are looking for security through marriage. We encourage puppy love to take itself seriously. The social consequences of this law deserve more study than they have received. Other nations have different pay practices. Britain, for instance, pays dependents' allowances only to men who enter or are retained in service after reaching the age of 23.

The services must also consider whether the payments for dependents to Regular soldiers in lower grades are causing these ranks to be filled by men of marginal capacities, thus barring advancement to younger men with greater capacity for development. It may be that in our changing civilization the first three grades would not be the best cut-off point for dependents' allow-

ances. It seems certain, however, that the present allowances to all grades are not designed to promote maximum efficiency of the fighting forces. Careful study and revision of the laws seem to be needed.

What would be the Congressional attitude toward a change in the laws? Parents would not oppose such amendments if they realized that changes in the laws would reduce the pressures that beget early marriages, and that couples would be influenced to defer wedding until after military service. If the change in pay could be keyed so as to limit selective service to ages 18 to 22, inclusive, except where deferment is requested, we would have a modification of the World War II statutes that meets the needs of today. The change should benefit the individual, our society, and the armed services of our country, and should contribute a substantial reduction to military costs.

ASK THE USER

CAPT. A. M. RUTHERFORD

I know that R&D solicits suggestions and issues prototypes of arms and equipment, and that new articles go to units for trial as well as to the various agencies concerned with development. The new greens were first tested by the 3d Infantry; the M14 rifle was tried by the 101st Airborne Division. But I am sure that anyone who has gone through a chow line juggling a two-piece mess

kit in one hand while leveling the hot contents of a canteen cup in the other has thought it would have been smart for someone to ask him how such equipment should be designed—before it is issued for test. Not only are we ignoring a vast source of ideas for improvements, but worse, we don't seek conceptions for original design.

In "The Angels Flex Pentomic Wings," in the February issue of ARMY, Brigadier General David W. Gray said

that tests by the 11th Airborne Division indicate that our 4.2-inch mortar needs a shorter minimum range and a longer maximum range. This finding resulted from observations during field tests by battle groups in the defense. However, unless the agency concerned is notified, for some time we will have to get along with a weapon that is not as effective in mobile defense as it should be. This mortar seemingly did not need any major improvement, but

An H-34 chops through the air with a 105mm carriage underslung on an airphibious operation



A radio-equipped jeep en route to firing site. Advance party rides in H-34



Two of the 4th Field Artillery's advance party take off as their H-34 helicopter sets down a radio-equipped jeep



the changes in organization and tactics resulting from the Pentomic organization present new requirements for this weapon.

Our bulletin boards carry posters urging people to offer suggestions, but it seems to me such suggestions are aimed at improvements in management. What the Army needs is a system whereby ideas on troop requirements gathered in low-level units are passed on to the agency that can use them. These troop requirements must become known before the weapon or piece of equipment is provided.

We can get such a flow of ideas up to R&D through periodic troop conferences. These committees might include all company commanders of a battle group plus the battle group's executive officer or its commander, or can be broadened to include platoon leaders. It should be large enough to reflect a true cross section of opinion yet not allowed to become unwieldy.

At one conference the agenda for the next meeting could be announced. Platoon leaders could indicate to their men the article to be observed and ask them to suggest possible improvements. While all units carry out their usual routines, all eyes would observe a certain piece of equipment or weapon. At the next conference unit reports would list all suggestions for modification or improvement. Possibly an idea for replacing the item will turn up, for transmission to an R&D agency.

R&D would thus get more than enough information on a certain weapon to enable it to meet troop requirements. The volume of reports need not be excessive. Through screening, the worth of certain suggestions could be determined by the frequency of their occurrence. A final compilation of these new ideas could thus be obtained by screening and condensing the extracted comments, and from these the upper agency could carry on further

research and development work.

The conference system should curtail the current time lag between obsolescence and replacement, because under our present methods the need for improvement or replacement does not always reach the R&D level.

I do not mean we must change every piece of equipment we own just to keep busy, but I do think R&D should be told where improvement is needed. We could also apply the conference method to organization and tactics, especially in these times of rapid technological change.

The need for up-to-date arms and equipment is vital. Let's use this means of infusing vitality and progressiveness into our Army.

Captain Andrew M. Rutherford, Infantry (USMA 1950), served with the 187th Airborne RCT in Korea. He is now Assistant PMST at Boston University.

WHAT'S IN A NAME?

CAPTAIN JOHN E. KENNEDY

The August 1957 edition of FM 6-21 (Division Artillery, Infantry Division) contains much interesting material. Perhaps the most interesting is paragraph 10 ("Duties of the Battery Commander"), subparagraph *a* of which says: "When a battery is directly under the operational control of division artillery, reinforcing a mortar battery, or attached to a supported command, the responsibilities of the battery commander are comparable to those of a battalion commander. . ." That this is true is borne out by the preceding paragraph, which defines the duties of the battery commander as including observation, liaison, communications, fire support, survey, fire direction, and selection of position. Some of these are old hat to the seasoned battery commander, but the parallel between the battalion commander under pre-Pentomic organizational concepts and the Pentomic battery commander is irresistibly clear.

Similarly, many functions of today's Pentomic battery have been assigned to the artillery platoon. For example, in Chapter 7 of FM 6-21, the word *platoon* occurs in parentheses after each mention of *battery*. (If this citation of chapter and verse is tedious, it is necessary in order to appreciate what

I have to say farther on.

It is logical to assume that the situations cited in subparagraph *a* will be the rule rather than the exception. That is, normally a battery will be either under the operational control of division artillery, or reinforcing a mortar battery, or attached to a supported command. Since rank goes with responsibility, it seems logical that the unit called *battery* by FM 6-21 should rate a more senior commander than the captain now assigned. It also appears that the artillery in our Pentomic Army has fallen the victim to an unfortunate association of terms. I don't know whether *battalion* was ever suggested for the major infantry unit in the Pentomic division, which would carry with it the inescapable conclusion that its commander should of course be a lieutenant colonel. However, these units happily emerged from the reorganization bearing the designation *battle group*; admittedly five-ninths the former regiment but each rating the rank of the former regiment's commander. The prospect of having five slots for combat-unit commanders wearing crossed muskets and eagles in each infantry division should have a healthy morale effect on the lower ranks who also wear muskets. The effect on the redlegs admittedly has not been reported, but up to now no loud cheers have been

forthcoming from Fort Sill.

Why, in all logic, should the two major artillery components of the Pentomic division be called *battalions*? When you consider that one has sixty-seven per cent more howitzers than the old-style 105mm battalion, while the other has the tasks of administering to and coordinating the fires of a variety of artillery found only at corps in pre-Pentomic days, the lack of logic becomes apparent. When we forget that names have been assigned these levels of command, and approach the problem from an uncluttered viewpoint, certain conclusions become apparent. One is the concept that the jobs performed by so-called battery and battalion commanders should be recognized by rank commensurate with the responsibility and degree of maturity called for. How we do this is not important. Perhaps the units denominated *battalion* in the Pentomic system could be called *artillery group*. This is no more cumbersome than *battle group*, and should evoke no more problems concerning lack of identification with a unit that one can call home than that term connotes. Once this semantic difficulty is overcome there appears to be no reason for not giving the commanders of these units a rank that corresponds with their responsibilities. This should be equal to the rank given their infantry coun-

terparts—that is, full colonel.

Once the hurdle is cleared at this level, it should not be difficult to bestow a more equitable rank on the so-called battery commander. The next higher rank, major, traditionally is not a command grade. But since tradition is being abandoned left and right anyway, why not make a complete break and designate majors to command these subordinate units? (What to call these units is more difficult to determine. For the reasons I have outlined in connection with *battalion*, the term *battery* should be abandoned. Perhaps *troop* could be resurrected.) Two captains could be assigned to each of these units, one as executive officer, the other as fire direction officer. If the battery (or whatever you call it) must be split into two platoons for Pentomic operations, as appears likely, each captain could command a platoon, and presto! we have come up with a solution ap-

proximating reality. Two firing units, operating independently, each commanded by a captain, just like in the good old days! Incidentally, I see no reason why the infantry should not be permitted to climb on the bandwagon at this point. So-called company commanders should be majors, for the reasons I have outlined apply also to infantry units of comparable size. This would also solve the problem of disparity in infantry command ranks between captain and colonel inherent in the Pentomic concept.

This free-handed bestowing of rank in the middle reaches of the artillery structure will be felt in both directions. The effect on the lower levels has already been considered. As for the higher grades, the problem is easier to solve. Restore the rank of brigadier general to the divarty commander, and everything falls into place: the Divarty exec becomes a colonel, the assistant

executive officer (yes, there is one in FM 6-21) becomes a lieutenant colonel, as does S3. The rest is easy.

Maybe what I propose won't receive the consideration it might have rated in the more peaceful days when the Army was unconcerned with such truly cosmic problems as the Cordner plan and the control of IRBMs. However, these problems have necessitated reorganization for atomic warfare, so perhaps this study is not so pedestrian as it seems at first glance. If we're going to modernize the Army, let's do a complete job and not merely a face-lifting.

Captain John E. Kennedy, Artillery, USAR, was commissioned from Harvard's ROTC in 1950. During the action in Korea he served as forward observer and liaison officer with the 45th Infantry Division, and with Turkish, Korean and Filipino troops.

SHOW US OUR REPORTS

CAPTAIN RATED

After almost twelve years, I am still amazed by the efficiency report system. I have never understood why information so vital to an officer is not accessible to him, nor have I understood the need for the secret rating system.

Efficiency reports provide the Department of the Army with a means of evaluating an officer's effectiveness. Assignments, promotions, eliminations, details or schools and many other actions at Department level are determined by an officer's efficiency reports. A series of these reports, spread over seven years, is used in computing the Overall Efficiency Index (OEI) which reliably estimates an officer's value to the service. During these seven years he probably will have worked under a variety of rating officers; consequently, outstanding traits, whether good or bad, will have been subjected to broad and varied scrutiny, thus balancing divergent observations.

The instrument is useful, and its purpose is sound. Why then is it almost universally feared?

Modern military administrators try to apply scientific methods in accomplishing their missions. If a procedure proves sound, it is adopted; if it is found unsound it is modified or rescinded. This appears to be the practice in all fields of administration except

that of the efficiency report. We seem hell-bent on proving the old saying, "It's not the system, it's the people who operate it." There certainly is enough proof against the system, whose greatest virtue is tradition, not success.

Our efficiency report system is essentially the same as it was during Washington's time. Periodic variations of its basic principles have been incorporated in an effort to insure its success. Revision fast follows revision, but it still doesn't work.

The OEI system equates superior performance to average value. The two are not synonymous. What kind of system relates its standards to lesser rather than to higher qualifications?

So many officers are *superior* simply because no one outside of Valhalla knows what score he is giving an officer when he rates him. So, rather than harm the rated officer, the rater marks him high. Consequently, the value of the report is inflated and requires frequent readjustments.

If after all these years the secret rating system has not solved the problem, why not divulge the ratings? Will that prove more harmful? Must a rater withhold basic facts in order to do a fair, honest job? Is our Army made up of officers who don't have the courage of their convictions? Why expect an officer to have the courage to face an armed enemy and not have the courage

to face a subordinate with plain, unadulterated truths—even if they are derogatory?

If, as current OEIs indicate, such a majority of us are *superior*, there should be no fear of abuse becoming widespread. So why not divulge the ratings? Simplify the grading system so that each officer can compute his own score. Publicize the system so that all can be thoroughly informed. Give every officer a copy of his efficiency report. Make it an open book and give it value.

The efficiency report is no substitute for leadership. Rate an officer high only if he merits a good report, not because it will win his cooperation, loyalty or support. If he deserves a bad one, rate him low, but not simply to do secretly what one hasn't the guts to do openly. By purpose, the efficiency report is a tool for Department of the Army.

Let's bring the efficiency report out into the open. If the principles on which it is based are so unstable as to be jeopardized by revelation, they must be faulty in the first place. If they are worth their purpose they'll survive. Defense is only for the weak.

Why should an officer have to go to Washington to learn his efficiency standing? If you haven't gone yet, you should, because that's the only way you'll learn it. And if you do go, you'll ask yourself, "Why was this necessary?"

THE MONTH'S READING

Both Types of Deterrent Essential

GENERAL MAXWELL D. TAYLOR
Address, Armed Forces Day Luncheon
Minneapolis, Minnesota
16 May 1958

The Communists' record for conducting limited wars cannot be overlooked. Although they have never launched a general war, their forces have fought in fourteen local wars during the past forty years. In no less than twelve of these, their aim was to extend their political and territorial power. Considering only the years since World War II, the USSR or its satellites have taken part in eight of the fifteen small wars which have occurred. They did so despite our possession during that period of an atomic superiority which for a time was a complete monopoly.

In most of these conflicts, the Communist troops have been provided by the Soviet satellite countries. Their men have been cheaply armed and equipped. They have relied on the sheer weight of manpower rather than on the capabilities of machines. In Korea, the Communists used saturation attacks, with each successive wave of men mounting on the dead of the preceding wave, in an effort to overwhelm the firepower of the defending forces. By Western standards, their troops have been poorly fed, maintained, and equipped. With vehicles in short supply, men have served as beasts of burden. Thus, in conflicts where the costs have been very largely limited to the human lives of satellite allies, the Soviets have developed a "bargain basement" kind of war by proxy entirely to their liking.

A special aspect of the Communists' technique of limited war is the exportation of so-called "volunteers." This method was used by the USSR as long ago as the Spanish Civil War. It was repeated by other members of the Communist bloc—as an instance, I need only cite the "Chinese People's Volunteer" units in Korea. Russia threatened its use as recently as the 1956 Suez crisis and in the subsequent unrest in the Middle East.

Through the use of these counterfeit volunteers, the Communists can enter conflicts occurring well beyond their own borders. They can greatly expand the scope and intensity of a war. They can make cold-blooded tests of new weapons and equipment in the laboratory of actual battle. They can do all this without legal involvement as belligerents, even though morally they are full participants.

In sum, the Soviets are not only inclined to turn to limited war by respect for our retaliatory forces, but they are also encouraged thereto by the appeal of its "cut rate" convenience—as the Soviets reckon costs.

Consequently, our military strength must contain balanced power capable of successfully countering many chal-

lenges short of general war. Mutual deterrence of general war alone would merely encourage the Communists to adopt limited war as a substitute means to their ends. Only by having a capability to counter limited war can we convince the Communists that local aggression will be resisted and promptly defeated. Even the prospect of a stalemate must be made to appear unrewarding. Such a capability will create an indispensable deterrent complementing that which our strategic atomic forces provide for general war. Both types of deterrent are essential for our continued security.

Field Expedient

THE NEW YORK TIMES

CAIRNS, Australia—The quartermaster at the Australian Regular Army jungle warfare training establishment at Dimbulah near here has filled what was probably the Army's most unusual supply order, according to the Association News and Information Bureau.

A Queensland expert on snakes who was lecturing Dimbulah trainees on the habits of reptiles found that cold nights had been upsetting the snakes and causing them to enter tents in search of warmth, he said. The problem was solved by issuing blankets and placing them in various parts of the camp for the snakes to curl up in, thus making it unnecessary for them to seek the warmth of the men's quarters.

Persistent Nibbling Can Defeat Us

WILLIAM H. HESSLER
War: Always an Art
U. S. Naval Institute Proceedings
April 1958

Quite understandably, most Americans, including most of their Congressmen, have focused their attention on the frightening danger of all-out nuclear war. They have been more ready to spend money for the tools of all-out offensive war with atomic weapons than for such pedestrian purposes as backing up some little-known remote Asian country that is under Communist pressure. And given the specialization of warfare today, there are not many weapons or pieces of equipment or military skills that can serve both for all-out nuclear war and for beating out brush fires in the backwaters of the world.

Budgetary emphasis on long-range air and ballistic missiles has been backed up by frequent political pronounce-

ments from Washington, all conveying the notion that our security depends mainly on massive retaliation at places and times of our own choosing. This has caught the popular imagination. And following the Soviet launching of an ICBM and the Sputniks there is still greater demand for putting still more of our eggs into the basket of readiness for all-out nuclear war.

Yet is it not a fact that the very destructiveness of modern weapons is in itself a deterrent to all-out war? With the closely-matched technological advances of American and Soviet military establishments, we do have a kind of nuclear stalemate. It is transparently foolhardy for either government to take the step to a conflict that will leave both sides in smoking ruin. However, this very deterrent to all-out war tends to force the pace of cold war, which can embrace economic rivalry, competitive overseas aid programs, and surreptitious infiltration in various marginal areas, such as South and Southeast Asia, the Middle East, and even Middle America on occasion.

In other words, it is something like an axiom of world politics today that the tighter the stalemate on all-out war, the more intense the pressure that lights off brush fires. And it is entirely possible for the United States to lose the great showdown of the twentieth century, not by defeat in a global atomic blitz, but by the persistent nibbling of Communist agents and partisans in minor countries that happen to be (1) strategically located and (2) ideologically vulnerable.

What Overrides National Interests?

SENATOR CLINTON P. ANDERSON
Address, National Press Club
Washington, D. C.
15 May 1958

The Joint Committee has consistently supported the increased production of plutonium. On March 14, 1957, its present Chairman, Carl Durham, in an address before the National Industrial Conference Board in Philadelphia asked if we were producing enough plutonium, taking into account the revolution by which nuclear weapons are supplanting conventional weapons, and said, "Unfortunately our military planning is apparently geared to productive capacity instead of our needs three or four years hence." Again in a speech before the Atomic Industrial Forum and the National Industrial Conference Board in Chicago on March 19, 1958, Chairman Durham stated, "I regret to say that the Defense Department has made no progress in getting out of its bureaucratic treadmill of basing its plutonium requirements on current AEC productive capacity."

I agree that we had better get off the treadmill. I would start a program of accelerated plutonium production to meet the often-repeated pleas of the military services.

In September of 1956, in August of 1957 and as recently as May 9, 1958, the Joint Chiefs of Staff have expressed to the Secretary of Defense their desire for a substantial increase in plutonium production. On their two earlier

pleas, higher officials in the Department of Defense ruled that the present plutonium production was sufficient. If the pleas of the Joint Chiefs have been heard at all in AEC, no action has followed.

It is no secret that AEC and JCAE have been working for three months on an informal agreement to provide more reactors, among them one to produce plutonium. We on the Joint Committee were at first hopeful. But when the AEC authorization bill came to the Joint Committee on May 9—the very day that the Joint Chiefs agreed again on the need for more plutonium—our hopes were dimmed by the evidence that AEC had to leave out the many millions—more than a hundred—for a plutonium producing reactor, the one thing the Joint Chiefs wanted most.

What was the reason given by AEC as to why the plutonium reactor was not requested? Again, no military requirement! In a manner of speaking at the recent executive session AEC said, it's not our fault, it's up to the Department of Defense. But is it? Questioning during this session brought out that there is no legal barrier to AEC exercising some foresight in its long range planning. . . .

Repeatedly I have said that I would like to see some of the secrecy that surrounds the Atomic Energy Commission and the Joint Committee eliminated. Let's see if this plutonium story gives us a reason.

The New York Times—prior to our hearings—had a story headed, "Atomic Infantry Sought by Army—Officials Press for Weapon Smaller than Volley Ball." That story told how this tiny weapon would be carried into combat by an infantryman and thereby give an infantry crew a striking power equivalent to thousands of tons of TNT. The story said that the Army, enthusiastic over this project, believed it should be pushed "even if it means expansion of plutonium facilities." When shown the story by a reporter and asked for comment, I admitted my great interest in it; but I must concede that I thought any such weapon, if indeed one did exist, necessarily would be carefully shrouded in secrecy. . . .

Other questions arise. Why should the Army be forced to say that it wanted to produce a new weapon even if thereby the production of plutonium had to be increased? Is it wrong to meet the estimates of the Joint Chiefs as to the nation's need? What interest overrides the national interest?

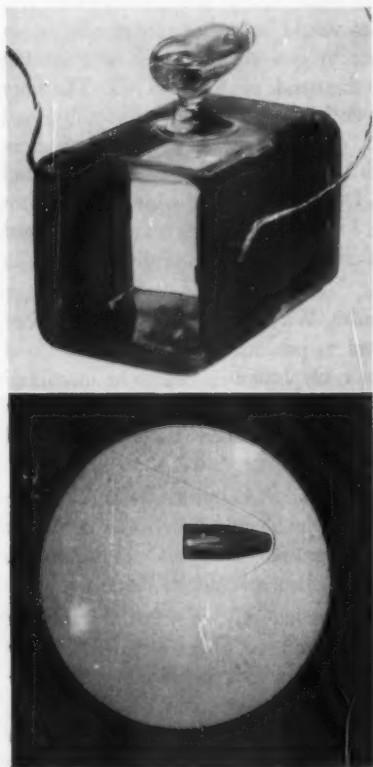
We have one clue in Joint Committee testimony when a witness under prodding by Senator Gore let us know that the budget established the final limitation—not the Bureau of the Budget but the dollars assigned to defense.

We had another clue when AEC testified it wanted to buy foreign-produced plutonium under a revised Section 55 of the Atomic Energy Act because the increase was required by developments in the weapons field; and then, when the State Department and the Joint Committee balked at its proposal to buy the plutonium abroad, it came up with no plan to increase plutonium production at home, even though special studies on promising reactor types had just been completed by it at a cost of millions of dollars.

Irons in the Fire

Supersonic Camera Shutter

Freezing a rifle bullet in flight is no challenge to the advanced supersonic camera shutter developed by Avco Manufacturing Corp. to keep pace with swift-moving technical strides in today's scientific world. This new development of the standard Kerr cell, long used in high-speed photography, snaps a subject in a hundred millionth of a second. High-powered rifles and a battery of Kerr cell cameras have been teamed up to provide data on flight in the transonic area—roughly from one half to one and a half times the speed of sound. The special cameras provide a record of a projectile in flight and the flow of air around it. The resulting aerodynamic information is important in the design of any shape that is expected to travel at high speeds through the atmosphere. This research is directly applicable in modern missile problems since an ICBM will pass through the transonic range during its acceleration from launching to top speed.



Employing the Kerr cell unit shown at top, this .220 rifle bullet, travelling 4,100 fps, is completely stopped in this photo, clearly revealing both the "bow wave" and rifling marks.



Detail of message from new teletypewriter

Message Mover

The world's fastest message printer and code puncher was unveiled at the Armed Forces Communications and Electronics Association convention recently in Washington. It is the first of a new family of super-speed combat teletypewriter units. The new vehicle-mounted device, developed by Kleinschmidt Laboratories, Inc., pounds out messages at 750 words a minute. As part of a combat communications center, it will be able to rush high-priority messages to widely-dispersed mobile command posts, at a speed five times faster than voice communication, and will produce a permanent printed record of the message for future reference. In the tempo of modern nuclear warfare, such speed is essential to relay warnings and information on enemy intentions rapidly and accurately over a broad area. The printer-puncher could also be used to feed battle information into a new mobile combat computer now under development. This electronic "brain" will be able to evaluate tactical information and decide on priority targets faster than any human.

Follow-Up on Miniaturization

Under a two-year, \$5 million contract with the Army Signal Corps the Radio Corporation of America will develop its "micro-module" electronic miniaturization concept to the point where fixed tactical, and airborne electronic systems can be reduced to one-tenth or less of their present size. RCA engineers calculate that it will be possible, for instance, to reduce the weight of a typical missile guidance and control unit from 30 pounds to about 4 pounds.

Gay Blade

An individually interchangeable all-metal rotor blade with a CAA approved life of 6,000 hours—longest ever achieved—has been developed by Vertol Aircraft Corp. for use on its military and commercial transport helicopters. Among the outstanding advantages of the new steel spar blade, compared with those fabricated of wood or aluminum, are: Greater inherent strength, resistance to damage in handling and field use, better resistance to erosion, and almost limitless fatigue life. The

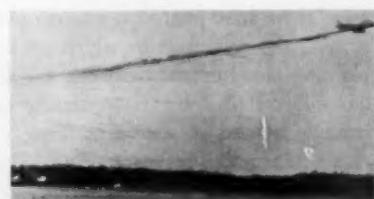


Cross-section of interchangeable all-metal blade

metal blade also has a vibration level equal to or better than that of a wooden blade. The new blade has successfully completed vibration, structural and flight evaluation tests conducted by the Army and Air Force.

Army Smoker

A new aircraft smoke tank which enables jet planes to lay down a smoke curtain for the concealment of paratroop and other combat operations, has been developed by the Army Chemical Corps. When the tank opens, an airborne cloud is formed immediately,



Containers striking ground release smoke while others fall from the trail to burst in air

while small containers fall to the ground. Some of the containers release smoke during the drop; others open upon impact. The result is a solid smoke curtain from 500 feet to the ground, formed in about 25 seconds.

Vested Power

Radio operators in the field in Arctic areas have a major problem with the dry-cell batteries which power their sets. Dry cells have

a tendency to go dead very rapidly when their electro-chemical reaction is slowed by extreme cold. A "battery vest" recently developed by the Army Signal R&D Laboratory may prove to be the solution to this problem. The batteries are carried in the pockets of a vest-like

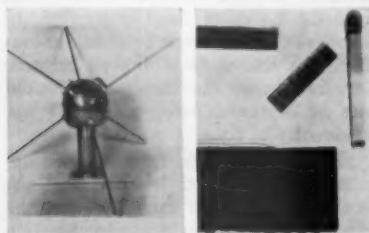


Battery vest utilizing body heat

garment worn beneath the operator's parka, where his body heat keeps them warm enough to last ten times as long as usual in weather 40 below. The batteries are connected and a cord is used to plug in standard Army radios.

Satellite Solar Power

When the Navy Vanguard satellite soared into orbit, all electrical power for one of its two radio transmitters came from the sun. High-intensity sunlight of outer space is



Navy Vanguard earth satellite at left, with Army-developed solar converters at right.

converted into electricity by 108 solar converters or batteries, grouped in six clusters placed symmetrically around the sphere's surface. Each cell is about half the size of a paper match. Research was accomplished by the Army Signal R&D Laboratory.

Mighty Mite Ordered

A \$6 million Army Ordnance contract for production of 250 Mighty Mite lightweight (1,700 lbs.) jeep-type vehicles has been awarded to American Motors Corp. The bantam vehicle is being produced for troop tests by the Marine Corps, and will be helicopter-transportable for tactical operations. The Mighty Mite label reflects its compactness, rugged construction and roadability.



Quarter-ton on expendable airdrop platform

Special Delivery

A new aerial delivery system, designed for more efficient and economical delivery of heavy equipment to troops by parachute, has been developed by Army Quartermaster Corps. The system features a new type of "drop kit," including an expendable platform, which can be tailored to individual items of equipment quickly on the spot, which costs about one-tenth as much, and which weighs about one-half as much as current types. Equipment can be dropped safely and accurately at a descent rate of 45 to 55 feet per second, which means vastly increased efficiency in getting airborne equipment to an intended spot.

Lightweight Engines

A series of three experimental lightweight aluminum V-8 automotive engines has been built by General Motors. The high-compression, high-output, liquid-cooled engines, higher in compression ratio than conventional engines, which now average about 9.5 to 1, are considered a significant engineering breakthrough. They have already undergone successful tests in laboratories and on the road. Outwardly, the engines have the appearance of conventional cast-iron V-8 engines, but they weigh about 30 per cent less than standard engines of comparable displacement and horsepower. A number of engines made of several aluminum alloys that have wear resistance superior to cast iron have been tested, and it has been found that aluminum is easier to work than cast iron. Over-all objective of

the aluminum-engine program is the development of lighter-weight engines with better economy and performance.

Instruments on Helicopters

A helicopter capable of day and night operations under instrument flight conditions—considered a major breakthrough in rotary-wing flight—is now in production at Sikorsky Aircraft. The new development discards a long-held general belief that helicopters would never be suited for instrument flight, and brings helicopter capabilities to an unprecedented potential. The new model HSS-1N incorporates these improvements: new radars to measure ground speed and altitude; advanced flight instrument and cockpit arrangement; automatic engine rpm controls; an automatic "hover coupler" enabling the helicopter to come to a zero ground speed hover at fifty feet above a pre-selected spot.

Painless Dentistry

A new anesthesia jet-injector device, which gives painless dental injections, marks the first basic change in injection methods in dental history, according to the Army Medical Service. In addition to the painless feature, the new method eliminates hazards of needle fracture and reduces transmission of infectious disease.



New painless anesthesia jet injector

Air-transportable Army Copter



The Army, concerned with the necessity of getting its front-line equipment to any battlefield on a moment's notice, insisted that its new utility helicopter be compact enough to be carried in a transport plane. Here a Bell YH-40 is being loaded into a C-124 at Fort Worth plant for delivery to Andrews Air Force Base to take part in Armed Forces Day show.

THE MONTH'S BOOKS

Division Histories

SOLDIERS: The Fighting Divisions of the Regular Army
By Bruce Jacobs
W. W. Norton & Company, 1958
367 pages; Illustrated; Index; \$5.95

Reviewed by

N. J. ANTHONY, an Associate Editor of ARMY, who served in the 1st Infantry Division and was associated with the publication of more than fifty unit histories.

"Pride in the division," says Lieutenant Jacobs, USAR, "is a twentieth-century development, the consequence of massed firepower in a combined arms team. It is important because it emphasizes the emergence of the modern division as a 'little Army,' with balanced combat elements, technical service, and logistical support." Working on that proposition, he has succeeded in compressing the combat history of the Regular Army since 1917, and the metamorphosis of the U. S. division, into 345 fact-packed pages. His book has long been needed. It is up to the minute, publication having been postponed in order to include the latest inactivations and reassignments. These are the outfits whose histories are clearly and accurately told (in case you don't know which are Regulars): 1st to 10th, 24th and 25th Infantry Divisions; 11th, 82d and 101st Airborne Divisions; 1st to 4th Armored Divisions; and 1st Cavalry Division.

In the U. S. Army there were no permanent units called divisions until they were authorized by the National Defense Act of 1916. In previous wars there were groups called "divisions," but their regimental components and even their own designations changed from one campaign to another, like corps do today. The 3d Division of I Corps at Fredericksburg might have become the 1st Division of III Corps at Gettysburg. Logically this book begins at 1917, goes on to World War II and Korea, with dates of activation and inactivation, commanders, locations of division headquarters, number of days in combat, combat casualties, battle honors, principal organic elements, Medal of Honor awards, Distinguished Unit Citations, and brief mention of interludes between inactive and combat service.

The first chapter is a clearly detailed history of the division's changing or-

ganization since it was first used during the Mexican War down to the present Pentomic structure. Tables illustrate the pattern for organizing Regular divisions (1st to 20th) during 1917-18, the redesignation and mobilization assignments of National Guard (26th to 41st) and National Army (76th to 91st) divisions for World War I, and those organized after 18 July 1917 (92d to 97th).

World War II saw the trial of seven types of division: motorized, airborne, mountain, jungle and light infantry divisions, cavalry and armored divisions. At the end we had 89 (67 infantry, 16 armored, 5 airborne, 1 cavalry), of which only two (2d Cavalry and 98th Infantry) failed to see action. One, the American, had no numerical designation, its name being a combination of "American" and "New Caledonia," where it was activated. Lieutenant Jacobs rounds out this chapter with an explanation of the current system of numbering divisions, reorganizations before and during World War II, concluding with a list of the divisions which fought in Korea and a brief explanation of the trend toward the Pentomic organization.

The history of any division must be a narrative of the deeds of its fighting men, for they are the stuff of which divisions are made. Here Lieutenant Jacobs succeeds admirably, using a clear and strong style. He was advised and assisted by scores of officers and enlisted men, in and out of the Pentagon, active and retired. His book deserves to become a military best-seller. A couple of minor errors in no way detract from its over-all excellence.

Surrender or Total Defeat?

STRATEGIC SURRENDER: The Politics of Victory and Defeat
By Paul Kecskemeti
Stanford University Press, 1958
287 Pages; Index; \$5.00

Reviewed by
FORREST C. POGUE.

During the past decade, political scientists and sociologists have sought to draw from a study of World War II a number of scientific formulas which can be applied in future conflicts. Mr. Kecskemeti, a member of the Social Science Staff of the Rand Corporation, attempts in this volume to find a point at which a potential winner in war should make

a determined effort to persuade his losing opponent to surrender short of total defeat.

The author, wishing to limit war in the future, deprecates wars which start as crusades, and surrender terms which are unconditional. He fears that "totality" and "unconditionality" will force an enemy who might otherwise seek terms, to use his remaining destructive nuclear power on his opponent.

The historical part of this volume is in many ways the most satisfactory. The author has drawn on the principal published sources for four excellent summaries of the surrenders in France (1940), Italy (1943), Germany (1945) and Japan (1945). He shows how the Germans and the Allies in the cases of France and of Italy, hoping to get either the cooperation or quiet submission of their beaten adversaries while the war continued, offered terms short of what they might have imposed. In the case of Germany, the war was allowed to run its course until the enemy armed forces disintegrated and the economy was so badly wrecked that the resultant chaos played into the hands of the Communists. In the case of Japan, even tremendous bombings had to be reinforced by some assurances that the emperorship would not be destroyed before surrender was achieved.

The author, while deplored the unconditional surrender formula, does not attempt to blame it for prolonging the war in Germany. He concludes that Hitler's refusal to consider any alternative except victory and the German fear of Soviet occupation were stronger than the Casablanca declaration in deciding the Reich to continue fighting. The Japanese peace proponents near the end of the war, he believes, would have accepted almost any terms except for their fear of the fanatical militarists and misplaced trust in Soviet mediation.

Despite his valuable analysis of the factors which brought surrender in World War II and his arguments in favor of limited warfare for the future, the author fails to give us a sure formula for attaining strategic surrender in the future. While he pleads for reason on the part of the victors, his examples show that fanatical leaders and proud commanders can prevent the peacefully inclined groups in the beaten countries from accepting proffers of peace. He fails to

show how a country can whip up the anger and determination necessary to wage victorious war without producing a feeling which will prevent it from offering reasonable peace conditions to the defeated enemy at the exact psychological moment. Mr. Kecskemeti, however, is thoroughly aware of this problem and has performed a valuable service in reminding us that we must think of the means for winning the peace at the same time we prepare to win wars.

Planning for Disaster

COMMUNITY IN DISASTER

By William H. Form and Sigmund Nosow
Harper & Brothers, 1958
273 Pages; Illustrated; Maps; Index; \$5.00

Reviewed by

CAPT. ROGER W. LITTLE, Medical Service Corps, a sociologist with the 3d Medical Battalion (3d Infantry Division) and occasional contributor to this magazine.

What could happen if a nuclear blast should strike an American community or a rear-area command, is suggested by this analysis of what did happen when a tornado struck the outskirts of Flint, Michigan. A sensitive description of human behavior is made through three stages: the immediate response of individuals in assuming emergency roles; the subsequent mobilization of local agencies specialized in dealing with crises; and the ultimate arrival of agencies external to the community but better equipped with personnel and resources.

The unique value of this study is the level of analysis used and the hard, persistent tracking down of the actual participants. The result is a body of findings that can be immediately employed in disaster planning. It is not a collection of the responses of excited and volatile victims, but a determined attempt to consider the effects of the disaster on the social relationships and cultural patterns existing in the community before, during, and after impact. Since any disaster plan is only a theoretical model of what social relations should be instituted during an emergency, planners can use this study to test the realism of their own design.

Three stages of disaster are specified. The pre-disaster stage (or "system") is the normal functioning of the community, including the customary expectation of emergency behavior and the agencies to be called upon for help. This system is probably the least understood or considered in disaster planning. A second system is the *emergency*—the period of immediate recovery from impact. During this phase a spontaneous rescue system emerges, operating in terms of customary crisis behavior, until it collapses or is reinforced by organizations with greater resources. In the post-disaster system, a

new structure of community relations appears with a re-evaluation of organizations on the basis of their performance in the emergency.

The most salient implication for military organization is the finding that community agencies rarely have effective routines, skills, or attitudes for dealing with one another on a lateral working basis. Customs of competition within the community for resources and prestige are not readily sacrificed for a common goal. To a large extent, rear-area damage control plans involve the same problem. Military commanders will usually enter the damage area without adequate understanding of the normal routines of community life, the relative standing of various agencies, and the relevant cultural patterns. Military governors learned that without this knowledge the chain of command was rarely adequate to secure successful coordination.

This book is an essential for service school libraries, and would be a valuable text for courses in disaster planning.

Going Over the Hill

THE LAW OF AWOL
By Alfred Avins
Oceana Publications, 1957
282 Pages; Index; \$4.95

Reviewed by

COL. JAMES K. GAYNON, JAGC, who is Chief, Legislative Division, Office of the Chief of Legislative Liaison, Office of the Secretary of the Army.

Absence without leave is a criminal offense only when the absentee is in the military service, but it is one of the oldest military offenses. It probably created as much of a problem in Caesar's legions as it does in military forces throughout the world today.

Alfred Avins, law instructor at Rutgers University, has written a book devoted entirely to AWOL. A Columbia law graduate, Mr. Avins has written articles which have appeared in a number of law journals, and his research in military law obviously has been quite extensive.

Although an exhaustive treatment of AWOL is provided, there is only passing comment on desertion. After an introduction in which AWOL is related to other offenses, it is discussed first from the standpoint of the prosecution, then of the defense.

It is unfortunate that it is not always easy to distinguish between extracts of cases and the author's text, and the case headnotes in quotation marks sometimes give the impression that they are actual statements of the courts.

Military appellate bodies may or may not agree with the numerous conclusions of the author, but for the lawyer, much interesting background material is provided. The layman who reads the book

Clausewitz...



ON WAR

TRANSLATED BY

O. S. MATTHIJS JOLLES

No military student is educated, no officer is competent for higher command or staff duties, until he has read and re-read *On War*.

Tactics change, often from year to year; strategic concepts must be redeveloped in light of new weapons and defenses against them. But the meaning and the purposes of war are unchanged and unchanging.

Clausewitz's clear, penetrating comments on the nature and conduct of war are as vital now as they were in his own time, and as they will be a century from now. His thinking and his logic have influenced every war fought in the 20th Century.

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Selected Check List of the Month's Books

This run-down of some of the books received for review during the month preceding our deadline is to give our readers who like to follow current literature a monthly check list of the most important, useful and potentially popular books. Full reviews of some of these books may appear in this or subsequent issues. Any of these titles may be purchased through the Combat Forces Book Service.

COMMUNIST CHINA TODAY; Volume II: Chronological and Documentary Supplement. By Peter S. H. Tang. Frederick A. Praeger, Inc., 1958. 137 Pages; Maps; \$3.75. Detailed chronology of the significant events in the rise of communism in China. Volume I was reviewed in our July 1957 issue.

GRAF ZEPPELIN: The Adventures of an Aerial Globetrotter. By J. Gordon Vaeth. Harper & Brothers, 1958. 235 Pages; Illustrated; Maps; Index; \$4.00. Life story of one of the most successful and beloved aircraft ever built, and of her great commander, Dr. Hugo Eckener.

THE LOOM OF HISTORY. By Herbert J. Muller. Harper & Brothers, 1958. 433 Pages; Illustrated; Maps; Index; \$7.50. The author of *The Uses of the Past* traces the rise and fall of civilizations in the storied cities of Asia Minor where the ideas and armies of East and West have met through the centuries.

MAKERS OF MATHEMATICS. By Alfred Hooper. Modern Library, 1958. 402 Pages; Illustrated; Index; \$9.50. The story of mathematics, from the time man first began to use his fingers for counting until he mastered the abstractions of the infinitesimal calculus. Includes the contributions of Thales, Pythagoras, Archimedes, Euclid, Descartes, Newton, Leibniz, Gauss and the moderns.

THE MILLIONTH CHANCE. By James Lesar. Reynal & Company, 1958. 244 Pages; Illustrated; Index; \$4.00. The story of the ill-fated R-101, the greatest dirigible ever built. It was larger than an ocean liner and was to have inaugurated regular air travel around the British Commonwealth. By the author of *The Red Fort*.

RADIO FREE EUROPE. By Robert T. Holt. University of Minnesota Press, 1958. 249 Pages; Index; \$5.00. How RFE was established, its basic policies and objectives, organization, personnel, programming, and services, transmission problems, effectiveness of propaganda. The author was on the psywar staff of USAREUR.

THE ROCKET PIONEERS ON THE ROAD TO SPACE. By Beryl Williams and Samuel Epstein. Julian Messner, Inc., 1958. 241 Pages; Illustrated; Index; \$3.75. A "who's who" of rocketry, about all the men who pioneered, from the Congreve rocket of Napoleonic Europe to the German V weapons to the events of October 1957. Revised edition of a book first published in 1955.

TEN THOUSAND EYES. By Richard Collier. E. P. Dutton & Company, 1958. 320 Pages; Illustrated; Maps; \$4.00. The amazing story of the spy network that cracked Hitler's Atlantic Wall before D-day. The author spent eighteen months of painstaking research, interviewing 150 persons, some of them a dozen times.

WAR AND SOCIETY IN THE SEVENTEENTH CENTURY. By Sir George Clark. Cambridge University Press, 1958. 157 Pages; Illustrated; Index; \$3.50. Discusses war as a factor for good and ill in European society in the seventeenth century; in particular, how war helped determine the emergence of modern Europe from a society geographically, politically and doctrinally confused.

WINNING THE WAR WITH SHIPS. By Admiral Emory S. Land. Robert M. McBride Company, 1958. 310 Pages; Illustrated; Index; \$4.75. Memoirs of the man who headed the greatest program of ship construction in history, successfully achieved in World War II.

should conclude that it would be better for him to consult a lawyer when he has a legal problem than attempt to act as his own counsel.

West Germany's Recovery

PROSPERITY THROUGH COMPETITION
By Ludwig Erhard
Frederick A. Praeger, Inc., 1958
263 Pages; Illustrated; \$5.00

Reviewed by
COL. CHARLES A. H. THOMSON, Infantry, USAR.

This book, by the man chiefly responsible for the German economic miracle

for a "social market economy" that gives full rein to competition leading to more income, widely distributed throughout the populace. Operating from this successful base in his own country, he looks forward eagerly to the establishment of the European common market, and expects Germany to play a full role in it.

Herr Erhard (he is also Minister for Economic Affairs) says he has no economic wonder-weapons; he has merely attempted to apply "principles of modern national economics which all the countries of the West have evolved, with a view to overcoming the age-old antithesis of an unbridled liberalism and a soulless State control, to finding a sound middle way between out and out freedom and totalitarianism." He relaxes his strictures against planning, just a little, in the field of rearmament. He is concerned that Germany shall play a proper role in the total European arms effort; and therefore some international allocation of functions is appropriate. But he is even more concerned that German rearmament industries shall not disturb the German economy, or that arms financing shall not lead (as it did earlier) to inflation. Otherwise, he does not deal with military questions. But politico-military planners need to take his over-all leadership into account. The fact that this book went through six German editions in nine months suggests its importance and influence at home.

British Official History

HISTORY OF THE SECOND WORLD WAR; Grand Strategy: Volume VI, October 1944-August 1945
By John Ehrman
British Information Services, 1958
422 Pages; Illustrated; Maps; Index; \$5.60

Reviewed by
FORREST C. POGUE, author of the U. S. Army's official *The Supreme Command, and Director of the Research Center, George C. Marshall Research Foundation*.

"Kept historians," "defenders of national bias," and "writers with inherent fear of drawing conclusions" are some of the epithets which have been hurled at official historians and history in the past few years. Professor Ehrman's volume, one of the best of the British history of World War II, cannot be seriously indicted on the first two counts, and does much to justify a cautious approach to final judgments on Western strategy in the period between the second Quebec conference and the end of the war with Japan.

Typical of the author's treatment of controversial subjects is his statement that there is no way of showing that the unconditional surrender formula "deterring any Germans from surrendering who would have surrendered otherwise." Speaking of the effect of British area

bombing in 1944-45, he says that it is impossible to fix the degree to which it either increased the defiance of the Germans or fatally weakened their resistance.

A careful balance is preserved in the description of the angry American-British debate at Malta early in 1945 over the Supreme Commander's strategy in northwest Europe. While Dr. Ehrman reports that the British came to suspect that Eisenhower's strategy was inadequate and that he failed to grasp the points of their objections, he does not leave the matter there. He adds that to the U. S. Chiefs of Staff who had supported the Eisenhower broad-front strategy, "it seemed intolerable that a campaign which, contrary to the fears of many Britons, had driven the enemy in four months from the Channel coast to the German frontier, should at once be followed by complaints and interference."

The author throws doubt on a frequently made postwar claim that the British vainly tried to block the Soviet advance in the closing days of the war in Europe by his statements (1) that even if the Prime Minister and Foreign Secretary had decided to act on the assumption that the USSR might be a potential enemy, there was no likelihood that such action would have been adopted by Great Britain or by the United States, and (2) "that they did not so decide." He notes that "the strategy they wanted to adopt in Germany was designed, not for reasons of defence or attack against Russia . . . but with the object, which they recognized must remain subsidiary to the immediate military task, of negotiating from strength."

In the case of British efforts in South-east Asia, the author comes nearer to pressing the case for his countrymen than at any other point in the book. He reminds us that 955,000 of the 1,304,000 men in the South-East Asia Command were from the British Commonwealth and that 738,000 Japanese surrendered in Southeast Asia. "The campaign in Burma," he continues, "was responsible for the deaths of probably 128,000 Japanese, just over 10 per cent of the Japanese soldiers thought to have been killed in the whole of the war, and for the largest single defeat of the Japanese army which occurred anywhere in the Far East."

The author's official calm shows clearly in his analysis of the decision to drop the atomic bomb. In one of his best chapters, covering 48 out of the book's 361 pages, he concludes that it was as reasonable to deduce from developments shortly before the surrender that an atomic bomb might help the Japanese peace party to force surrender on its opponents in the government as it was to deduce that the two parties together would accept peace without the bomb. "Togo and

the Emperor were desperate, but still they could not prevail. The situation seemed to have reached the point where the bomb—and perhaps the bomb alone—would have had the required decisive effect."

In his excellent closing chapter, the author describes effectively the organization which permitted the Allies to wage war successfully. Excerpts from his accounts of the British and American Army chiefs, Brooke and Marshall, show his ability to assess leadership ably and impartially.

Field Marshal Brooke, "possessing a clear and acute mind, great professional integrity, and . . . a strong but controlled temper," commanded the respect of his colleagues and the Prime Minister. "In so far as the Chiefs of Staff designed British strategy," adds Professor Ehrman, "that strategy bore his impress; and when they were required to act as a corrective to Mr. Churchill, it was he who usually bore, and resolutely, the brunt of what ensued."

He also has high praise for General Marshall, "whom both the American and British Chiefs of Staff came to regard as in practice *primus inter pares*. Marshall indeed towered over the military scene in Washington." "It was . . . the impression of strength and maturity . . . which impressed his associates and subordinates, and which in the United States secured the ready acceptance of his policies. Possessing the entire confidence of the Army, of the President, and—perhaps his greatest achievement—of Congress, he filled to the general satisfaction the exacting military and political duties required of the Chief of Staff of the U. S. Army in war."

From these and numerous other examples of the author's impartial and careful judgment, one must conclude that his kind of history has a proper place on the shelf of the student. Not only does it reveal the difficulty of making final conclusions on World War II at this point, but it is a constant reminder of the complex task faced in reaching decisions by Allies whose political aims were not always the same and whose resources in men and matériel were vastly different. At a time when the general public and non-official historians are still denied access to many official records of the war, it is vital to have accounts based on these documentary sources which avoid any attempt to impose official conclusions on the reader. Professor Ehrman, in this and his previous volume on strategy, has rendered a valuable service.

Developing Leadership

MODULAR MANAGEMENT AND HUMAN LEADERSHIP

By Frank Pieper
Methods Press, 1958
288 Pages; Illustrated; Index; \$6.50

Reviewed by

JULIUS SEGAL, psychologist and free-lance writer, who is Senior Research Scientist on the staff of the Human Resources Research Office of the George Washington University.

At first glance, Mr. Pieper's book would seem to be an entirely inappropriate addition to the do-it-yourself literature currently burdening the book stalls. The development of leadership qualities is a task far different from the construction of a hi-fi cabinet, and this review was frankly skeptical of a work billed as "a practical manual . . . on how to help workers work," one which analyzes "at last, in black and white, the 'lead' in leadership."

You still can't tell a book by its jacket, however. Mr. Pieper's volume represents self-help writing at its best: straightforward, yet cautious; stylistically simple, yet full of meaty ideas; truly helpful, yet putting the burden of growth on the reader and not on the power of positive reading.

The author directs his book toward foremen and supervisors in both industry and government whose job it is to see that workers produce. At no point is the would-be leader told how he must behave in relation to his subordinates. He is simply encouraged to vary his "style," to try some of the specific behaviors suggested, and then to determine—by watching the results—which are most fruitful for him.

Army management, like that of many large organizations cited by Pieper, is inevitably "modular." The rank and file do indeed resemble impersonal units of measurement, to be "moved around and fitted together with others . . . in work units that best serve the goals of the organization." It is difficult to imagine an efficient army managed in any other way. The author's major thesis, however, is that the *immediate* leader who stands between the impersonal, modular manager and the worker can enhance the welfare and productivity of workers by relating to them not as robots, but as human beings. Such opportunities are by no means absent in the military unit.

Although Army "foremen" frequently lack the time or inclination to study their own leadership behavior, this book may well find its way into the quarters of noncommissioned officers and junior-grade officers. There is no saccharine interest here in the human element for sentimentality's sake alone. Pieper's mission is primarily to help get the job done, and grass-roots leaders—in uniform and out—who share this mission will find ample stimuli here for self-examination and (who can say?) even some self-improvement.



ASSOCIATION OF THE U. S. ARMY

AIMS AND OBJECTIVES

The Association of the U. S. Army shall be an organization wherein all who are in accord with its objectives may join in the exchange of ideas and information on military matters, and in fostering, supporting, and advocating the legitimate and proper role of the Army of the United States and of all its elements, branches, and components in providing for and assuring the Nation's military security.

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QUARTERLY LISTING OF CHAPTERS AND ROTC COMPANIES

A complete list of Chapters and ROTC Companies and their officers is published in the January, April, July and October issues of ARMY. Only current activities of chapters and companies are reported in these columns in intervening issues.

CHAPTERS

ABERDEEN CHAPTER—Box 331, USAOS, Aberdeen Proving Ground, Maryland. President: Capt. Jeffie W. Muskrat; Vice President: MSgt Delbert R. Gentry; Secretary: Capt. Mary L. Immel; Treasurer: 1st Lt. John P. Lewis.

ALAMO CHAPTER—P.O. Box 11401, San Antonio 8, Texas. President: Lt. Col. Reagan Houston, III, USAR; First Vice President: Gen. William H. Simpson, USA-Rtd; Second Vice President: Col. J. Hamilton Savage, Jr., USAR; Third Vice President: Col. John W. Beretta, USAR; Secretary: Capt. Robert W. Graf; Treasurer: Col. E. C. Peters; Judge Advocate: Col. C. E. Brand, USA-Rtd.; Chaplain: Chap. (Maj.) David M. Reardon.

ALASKA SOUTHERN CHAPTER—P.O. Box 720, Anchorage, Alaska. President: Mr. Daniel H. Cuddy; First Vice President: Col. Thomas P. Carroll, AGC; Second Vice President: Lt. Col. Edwin O. Carlson; Secretary: MSgt Frank A. Posthuma, Jr.; Treasurer: Mr. Sam B. Ricks. Charter meeting 17 May addressed by the Hon. G. H. Roderick, Assistant Secretary of the Army, at Northland Theater, Fort Richardson.

ALBUQUERQUE CHAPTER—Secretary: Capt. Shirley J. Minge, USAR, USAR Armory, 400 Wyoming Blvd., N.E., Albuquerque, New Mexico. President: Lt. Col. Denton E. Sprague, USAR; First Vice President: Lt. Col. James M. Keating, USAR-Rtd.; Second Vice President: Lt. Col. Peter Brooks, USAR; Treasurer: 1st Lt. Albert T. Ussery, USAR.

Col. Robert M. Williams, Deputy Chief, Civil Affairs & Military Government, addressed 21 April meeting on "Military-Civilian Relationships in American International Security Policy and Diplomatic Relations." Maj. Gen. Robert Gard, CG VIII U. S. Army Corps (Res.), and a group of teachers from the Albuquerque schools were guests. Meeting held in American Legion Hall.

ANTILLES CHAPTER—P.O. Box 368, Roosevelt Station, Hato Rey, Puerto Rico. President: Col. Andres Lopez, Rtd.; First Vice President: Mr. Frederick C. Dieterle; Second Vice President: Col. Rene Lopez Duprey, Rtd.; Secretary: Capt. Jack R. Ramey; Treasurer: Mr. Efrain Munoz-Bocanegra.

AUGUSTA AREA CHAPTER—Secretary: Mr. Hillary Mangum, c/o Augusta Merchants Association, Auditorium Building, Augusta, Georgia. President: Mr. Pierce G. Blitch; Vice Presidents: Mr. L. C. Phillips, Mr. Monroe Kimbrell, and Mr. Robert Penland; Treasurer: Mr. Felton Dunaway; Asst. Treasurer: Capt. John C. Pastell.

Organization meeting 15 May. Chapter will include personnel from Fort Gordon.

BALTIMORE CHAPTER—Secretary: Col. James W. Allison, III, USAR, The Whitaker Paper Company, 210 E. Saratoga St., Baltimore 2,

MARYLAND. President: Mr. William A. Graham; First Vice President: Mr. Edward Vinnicombe; Second Vice President: Mr. Jack A. Clarke; Treasurer: Mr. Charles A. Noon, Jr.

BORDER LEGION CHAPTER—Hq 11th Armored Cavalry Regiment, APO 305, New York, New York. President: Col. Allen D. Hulse; First Vice President: Lt. Col. Sterling J. McKean; Second Vice President: Lt. Col. Robert P. Andrews; Third Vice President: Lt. Col. John J. Prokop, Jr.; Secretary: MSGt Frank Langwasser; Asst. Secretary: SFC Francis McMahon; Treasurer: CWO James N. Spone.

BRAXTON BRAGG CHAPTER—P.O. Box 36, Fort Bragg, North Carolina. President: Mr. Wilbur Smith; First Vice President: Gen. John R. Hodge, Jr., USA-Rtd.; Second Vice President: Mr. E. L. Massei, Jr.; Secretary: Col. S. T. Hill; Treasurer: MSGt Tracy Sweat.

Above officers installed 6 June, marking turnover of chapter from military to civilian leadership. Dr. Charles Stockman, of the B. F. Goodrich Research Center, addressed meeting on the peacetime uses of atomic energy.

CALIFORNIA CENTRAL VALLEY CHAPTER—Information Officer, Sharpe General Depot, Lathrop, California. President: Brig. Gen. D. S. McConaughy, USA-Rtd.; First Vice President: Col. Robert S. Quick; Second Vice President: Col. Wyan Thiessen, USA-Rtd.; Secretary: Mr. Kenneth F. Neill; Treasurer: Mr. Carroll G. Grunsky.

CENTRAL FLORIDA CHAPTER—P.O. Box 2631, Orlando, Florida. President: Col. David W. Hedrick, USAR; First Vice President: Maj. James B. Sullivan, USAR; Second Vice President: Capt. Leslie C. Hall, USAR; Secretary: CWO Elbert G. Hennig, USAR; Treasurer: Lt. Col. George E. Smith, USAR.

CENTRAL TEXAS-FORT HOOD CHAPTER—P.O. Box 75, Killeen, Texas. President: Mr. Roy Reynolds; First Vice President: Mr. William Bigham; Second Vice President: Mr. J. C. Gresham; Secretary: Mr. George Cates; Treasurer: Mr. G. M. Wilde.

AUSA display at Fort Hood's Armed Forces Day event drew several thousand visitors; Central Texas civic leaders and military officers broadcast over KLEN, Killeen, from the AUSA tent. Twenty civilian members joined military members in manning the display.

CHICAGO AREA CHAPTER—Room 226, 666 North Lake Shore Drive, Chicago 11, Illinois. President: Gen. Robert E. Wood, USA-Rtd.; First Vice President: Brig. Gen. Lawrence Whiting, USA-Rtd.; Second Vice President: Brig. Gen. Otto Kemer, USA-Rtd.; Third Vice President: Col. Walter L. Furbershaw, USA-Rtd.; Fourth Vice President: Col. Joseph Triner; Secretary: Col. J. V. Houghtaling, USA-Rtd.; Treasurer: Lt. Col. O. C. Tyler, USAR; Asst. Secretary: Lt. Col. Herbert Moselle, USAR.

Chapter on May 15 acted as host to a group of several hundred leading citizens of the area to preview "This Is the Army-'58," Army-sponsored exhibit touring ten leading cities. The Hon. Frank H. Higgins, Assistant Secretary of the Army, was principal speaker. Brig. Gen. Lawrence Whiting, USA-Rtd., acted as chairman of the meeting which honored Brig. Gen. Robert E. Wood, chapter president. Lt. Gen. W. H. Arnold, CG Sixth U. S. Army, presented Gen. Wood a Certificate of Appreciation.

COLUMBIA RIVER CHAPTER—Secretary: Mr. Edgar W. Smith, 852 Pittock Block, Portland 5, Oregon. President: Maj. Gen. Lamar Tooze; First Vice President: Mr. Charles E. Snell; Second Vice President: Mr. Robert W. Earl; Treasurer: Mr. E. C. Sammons.

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President Woodruff represented the chapter at Awards Day Ceremony at University of Georgia, presenting the AUSA ROTC Medal in the name of national headquarters. Meeting 22 May heard Lt. Col. K. E. Pell discuss "U. S. Army Atomic Delivery Systems."

DALLAS CHAPTER—Secretary: Lt. Col. John L. Briggs, Southland Insurance Company, Dallas, Texas. President: Col. William B. Ruggles, USA-Rtd.; First Vice President: Mr. Harold F. Volk; Second Vice President: Mr. N. J. DeSanders, Jr.; Treasurer: Mr. Lloyd S. Bowles.

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DIX CHAPTER—Vice President-Secretary-Treasurer: MSGt Joseph J. Corcoran, Office of the Chief of Staff, Fort Dix, New Jersey. President: Col. G. C. Jones.

EAST BAY CHAPTER—Secretary: Col. Earl W. Huntting, USAR, Insurance Securities Trust Fund, 2030 Franklin, Oakland 12, California. President: Mr. Arthur C. Ames; First Vice President: Maj. Gen. William F. Dean, USA-Rtd.; Second Vice President: Lt. Col. John M. Fowler, USAR; Treasurer: Lt. Col. John A. Dutro, USAR.

8TH INFANTRY DIVISION CHAPTER—Hq 8th Infantry Division, APO 111, New York, New York. President: Brig. Gen. William F. Train; Vice President (Bad Kreuznach Area): Lt. Col. John J. Dunn; Vice President (Mainz Area): Capt. Thomas C. Fleury; Vice President (Baumholder): Capt. Joseph P. Kingston; Vice President (Sandhofen): Lt. Col. Charles R. Thomas; Secretary: MSGt Henry J. Swinehart; Treasurer: Capt. Thomas F. McLean.

Col. H. W. Shaller addressed meeting 2 May on "The Role of the Post Exchanges in the Army"; chapter adopted resolution supporting Exchanges. Over 360 members were present.

EL PASO CHAPTER—P.O. Box 193, El Paso, Texas. President: Dr. Hervey W. Dietrich; Vice Presidents-Treasurer: Mr. Richard W. MacCarthy; Secretary: Mr. C. M. Wakefield.

11TH AIRBORNE DIVISION CHAPTER—APO 112, New York, New York. Honorary President: Maj. Gen. Hugh P. Harris; President: Col. A. R. Taylor; First Vice President: Lt. Col. Edgar R. Fenstemacher; Second Vice President: MSGt Abel J. Fernandez; Secretary: MSGt Russell A. Steinkuehler; Treasurer: Capt. George A. Peters.

FORT DEVENS CHAPTER—First Vice President: Lt. Col. Robert C. Harris; Second Vice President: Maj. Glenn N. Mayo; Secretary: Capt. R. S. Moriarty; Treasurer: Maj. Margot Reis.

FORT LEE CHAPTER—Hq Quartermaster Training Command, Fort Lee, Virginia. President: Col. Elmer M. Burns; First Vice President: Dr. Howard W. Hembree; Second Vice President: Col. Alexander G. Eagle; Secretary: Lt. Col. Earl M. Bradley; Treasurer: 1st Lt. Carl P. Flanagan, Jr.

FORT LEONARD WOOD CHAPTER—Secretary: Capt. James C. Kesterson, Building 401, Fort Leonard Wood, Missouri. President: Mr. Dru Pippin; First Vice President: Mr. Dale Bradford; Second Vice President: Mr. Rudy Weber; Treasurer: Lt. Richard J. Kellogg; Asst. Secretary-Treasurer: SFC August H. Meyer.

FORT RILEY-CENTRAL KANSAS CHAPTER—Room 114, Patton Hall, Fort Riley, Kansas. President: Mr. John D. Montgomery; First Vice President: Mr. Ralph Wareham; Second Vice President: Mr. Charles S. Arthur; Executive Secretary: Mr. Blair D. Adam; Treasurer: Mr. Ed J. Rolfs, Jr.; Recording Secretary: Sgt. Raymond N. Gesell.

FORT SHERIDAN CHAPTER—Hq Fort Sheridan, Illinois. President: Maj. Dale E. Williams; Second Vice President: Mr. Donald Y. McKay.

FRANKFURT CHAPTER—Secretary: Capt. Robert M. Dwinell, Hq 4th Armor Group, APO 757, New York, N. Y. Honorary President: Lt. Gen. Francis W. Farrell; President: Col. Melvin M. Kernan; Honorary Vice President: Maj. Gen. Paul D. Adams; First Vice President: Col. Max Hazelhurst; Second Vice President: Col. Willie H. H. Jones; Treasurer: Maj. Robert J. Fair.

GENERAL JOHN J. PERSHING CHAPTER—Secretary: Lt. Orval M. Conner, 5635 Hartley, Lincoln, Nebraska. President: Col. Paul Kisner; First Vice President: Lt. Col. Jack D. Anderson; Second Vice President: Lt. Col. Harry A. Sterns; Treasurer: Maj. Harry Levinson.

GEORGE WASHINGTON CHAPTER—Secretary: Mr. Henry Handler, 409 Perry Street, Fairfax, Virginia. President: Dr. Roland R. Kirks; First Vice President: Gen. Jacob L. Devers, USA-Rtd.; Second Vice President: Mr. Warren R. Smith; Treasurer: Major John P. Kelly.

Gen. J. Lawton Collins delivered principal address at first meeting of AUSA's "hometown" chapter, speaking on the Army's role in the thermonuclear age. On behalf of national AUSA, the chapter presented seven Certificates of Appreciation to individuals who assisted in arranging the 1957 Annual Meeting.

GREAT LOS ANGELES CHAPTER—Secretary: 1st Lt. Doris M. Schmerling, CO, Wac Det., Fort MacArthur, Calif. President: Mr. Robert C. Geffs; First Vice President: Col. Joseph H. Pengilly, USAR-Rtd.; Second Vice President: Lt. Col. Jack Warner, USAR; Treasurer: Brig. Gen. A. J. Maxham, Cal. NG Res.

HAWAII CHAPTER—Association of U. S. Army, Box 100, APO 958, San Francisco, Calif. President: Lt. Gen. Henry S. Aurand, USA-Rtd.; First Vice President: Brig. Gen. Kendall J. Fielder, USA-Rtd.; Second Vice President: Maj. Gen. Fred W. McKinney HNG; Third Vice President: Col. Percy H. Johnston, USAR; Secretary: Major Charles D. Flinn; Treasurer: Capt. Kenneth Y. H. Ahana.

HEADQUARTERS SEVENTH U. S. ARMY CHAPTER—c/o Secretary of the General Staff, Headquarters, Seventh U. S. Army, APO 46, New York, N. Y. President: Brig. Gen. James K. Wilson, Jr.; First Vice President: Col. Donald M. McClain; Second Vice President: Col. James Taylor, Jr.; Secretary: Major Young O. Kim; Treasurer: Lt. Colonel Dan P. Briggs.

HEIDELBERG CHAPTER—Hq USAREUR, APO 403, New York, New York. President: Major Gen. G. E. Martin; First Vice President: Col. K. E. Adamson; Second Vice President: Col. S. E. Otto; Secretary: Maj. A. L. Shoaff; Treasurer: Major W. H. Brandenburg.

HENRY LEAVENWORTH CHAPTER—614 Delaware Street, Leavenworth, Kansas. President: Lt. Col. Harold Purdy, USAR; First Vice President: Mr. John W. Breidenthal; Second Vice President: Col. Edward C. Dunn; Secretary: Lt. Col. Cecil C. Helena; Treasurer: Mr. George H. Ryan.

Officers listed above were elected at 3 May meeting.

INDIANA CHAPTER—711 N. Pennsylvania St., Indianapolis, Indiana. President: Maj. Gen. Emmett J. Bean, Rtd.; First Vice President: Brig. Gen. John W. McConnell; Second Vice President: Colonel James O. Freese; Secretary: Major Jack K. Elrod; Treasurer: Major Walter J. Schuchmann.

KELLEY BARRACKS CHAPTER—Attn: SGS, APO 107, New York, N. Y. President: Col. J. K. Boles; First Vice President: Lt. Col. J. T. Joseph; Second Vice President: MSgt E. M. Kirlin; Secretary: Col. L. G. Robinson; Treasurer: Capt. H. J. Korstange.

KENT-SUSSEX CHAPTER—P.O. Box 643, Dover, Delaware. President: Lt. Col. Joshua T. West; First Vice President: CWO Edward R. Knight; Second Vice President: MSgt Russell E. Donovan; Secretary-Treasurer: Lt. Col. Oliver J. Cejka.

Charter meeting held 25 April at Fort Miles. Maj. Gen. Joseph J. Scannell, State Adjutant General, presented charter.

KENTUCKIANA CHAPTER—General Delivery, Fort Knox, Kentucky. President: Dr. Phillip Davidson; First Vice President: Mr. Thomas Graham; Second Vice President: Mr. Ducat McEntee; Secretary: Capt. Clarence W. Pratt; Treasurer: Capt. Wilbur T. Whitehead; Asst. Secretary: MSgt Robert J. McDonald; Asst. Treasurer: Capt. Sidney R. Steele.

The Hon. Hugh M. Milton, II, Assistant Secretary of the Army, spoke on military policy at Armed Forces Day dinner meeting, held in Louisville.

LAWTON-FORT SILL CHAPTER—P.O. Box 1345, Fort Sill, Oklahoma. President: Mr. Joseph R. Peller; First Vice President: Mr. Parks Stoval; Second Vice President: Mr. Glen Dutcher; Secretary: Capt. Fletcher W. Fraley; Treasurer: Brig. Gen. John F. Bird, Rtd.

Above officers elected 26 May, at meeting addressed by Congressman Toby Morris. Mr. Morris advocated continued military and economic strength to enable the United States to lead the world to peace.

LOS ALAMOS-SANTA FE CHAPTER—Secretary: Maj. Joy E. Fincke, USAR, 2139-A 48th St., Los Alamos, New Mexico. President: Lt. Col. John F. Weinbrecht, USAR; First Vice President: Lt. Col. Samuel P. Davalos, USAR; Second Vice President: Maj. Carl A. Freeman, USAR; Treasurer: Maj. Harry D. Wise, USAR.

MACON COUNTY CHAPTER—Secretary: Capt. Richard G. Derby, Adjutant, Decatur Signal Depot, Decatur, Illinois. President: Col. Harold Schmitt, USAR; First Vice President: Lt. Col. Fred J. Hays, Rtd.; Second Vice President: Capt. Robert E. Creek, USAR; Treasurer: Capt. John T. McCracken.

MANNHEIM CHAPTER—Secretary: Capt. J. H. Hunt, Hq and Svc Co., U. S. Army Garrison, HACOM, APO 333, New York, New York. President: Lt. Col. R. S. Boyer; First Vice President: Major C. E. Rose; Second Vice President: Lt. Col. L. S. Karawski; Treasurer: Sgt. J. W. Wilson.

MARNE CHAPTER—Secretary: Lt. Col. Paul S. Lindberg, 3d Infantry Division, 3d Admin. Co., APO 36, New York, New York. Honorary President: Maj. Gen. Roy E. Lindquist; President: Col. David C. Lewis; First Vice President: Col. Charles B. Smith; Second Vice President: Lt. Col. John E. Beebe, Jr.; Treasurer: Maj. Alois L. Steinbach.

Charter presented by Gen. Bolte, AUSA Trustee, at Fort Benning in March. Chapter is attempting to have all 3d Division personnel affiliated with others chapters, to transfer to Marne Chapter.

MILWAUKEE CHAPTER—Secretary: Mr. George Comte, 5009 N. Cumberland Blvd., Milwaukee, Wisconsin. President: Brig. Gen. Don E. Carleton; First Vice President: Mr. G. M. Taylor; Second Vice President: Lt. Col. Roth S. Schleck; Treasurer: Maj. Frank X. Mages.

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MCJOY-RED CLOUD CHAPTER—Secretary: Mr. Robert Ninneman, Tomah, Wis.; President: Mr. Frederic D. Rahr; First Vice President: Mr. Don Hartis; Second Vice President: Mr. John Kaehler; Treasurer: Mr. Stuart Latimer.

NEBRASKA CHAPTER—Hq XVI U. S. Army Corps (Res), 21st and Woolworth Avenue, Omaha, Nebraska. President: Col. Kermit Hansen, USAR; Vice President: Maj. Charles E. Artzberger, USAR; Secretary-Treasurer: Capt. Robert C. Fisk, USAR.

NEW ORLEANS CHAPTER—4400 Daupine St., New Orleans 40, La. President: Mr. Wallace M. Davis; First Vice President: Col. Donald E. MacDonald; Second Vice President: Brig. Gen. Robert V. Maraist, USA-Rtd.; Third Vice President: Mr. Jonas C. Sporl; Secretary: Maj. Louis Robillia, Jr., USAR; Treasurer: Mr. Newton D. McLean.

Chapter presented Congressman F. Edward Hebert with a citation for "outstanding leadership on the House Armed Services Committee."

NEW YORK CHAPTER—President: Colonel Charles I. Katz, USAR, 250 West 57th Street, New York 19, New York; First Vice President: Col. Arthur D. Hirt, USAR; Second Vice President: Lt. Col. Pelham St. George Bissell, III, USAR; Secretary: Maj. Daniel J. Kern, USAR; Treasurer: Col. Lloyd W. Stearns, USAR.

Maj. Daniel Kern, representing the chapter and national AUSA, presented the charter to the LaSalle Military Academy AUSA ROTC Company on 25 April. On 1 May, Dr. (Lt. Col.) Edmund J. Gannon, Associate Superintendent of Schools, City of New York, and a member of the chapter, presented AUSA ROTC Medals at Polytechnic Institute of Brooklyn. On 2 May, Col. Katz presented the AUSA ROTC Medal at New York University.

NEWTON D. BAKER CHAPTER—Secretary: Col. Richard L. Gillespie, USAR, Veterans Admin. Regional Office, Cuyahoga Building, Cleveland 14, Ohio. President: Hon. Robert H. Jamison; First Vice President: Gen. William F. Hoge, USA-Rtd.; Second Vice President: Brig. Gen. George R. Schmucker, USAR-Rtd.; Treasurer: Lt. Col. Henry E. Zachman, USAR.

NORTH FLORIDA CHAPTER—P.O. Box 731, Tallahassee, Florida. President: Lt. Col. Jessie F. Warren, USAR; First Vice President: Lt. Col. Jay L. Hall, NGUS; Second Vice President: Lt. Col. Samuel L. McCall, USAR; Secretary: MSgt William L. Tumlin, RA-Rtd.; Treasurer: Lt. Col. John E. Miklos, USAR.

NORTHEAST FLORIDA CHAPTER—P.O. Box 3141, Jacksonville, Florida. **President:** Mr. Henry J. Wolfs; **First Vice President:** Mr. Frank F. Strickland; **Second Vice President:** Mr. J. A. Dionne; **Secretary:** CWO Robert J. Crawford, USAR; **Treasurer:** Mr. Jacob W. Dehaan.

NORTHERN DELAWARE CHAPTER—P.O. Box 607, Wilmington 99, Delaware. **President:** Col. Walter L. Tindall, DNG; **First Vice President:** Mr. Henry N. Marsh; **Second Vice President:** MSGt John E. Mastin; **Secretary:** 1st Lt. Donn Devine; **Treasurer:** Lt. Frank M. Gorsuch, III, USAR.

Chapter has been active in pressing for Army objectives through legislative contacts.

NURNBERG AREA CHAPTER—**Secretary:** Capt. Thomas F. Ellzey, Special Activities Division, Hqs USAREUR, APO 245, New York, N.Y. **Honorary President:** Maj. Gen. Derrill M. Daniel; **President:** Brig. Gen. William F. Ryan; **First Vice President:** Lt. Col. John R. Himmelright; **Second Vice President:** MSGt Raymond J. Kline; **Treasurer:** Lt. Col. William H. Dodge, Rtd.

OKLAHOMA CITY CHAPTER—1101 North Broadway, Oklahoma City, Oklahoma. **President:** Col. Charles E. Tompkins; **First Vice President:** Brig. Gen. Paul B. Bell; **Second Vice President:** Col. John W. Long, AUS-Rtd.; **Secretary:** 1st Lt. Ruth Anne Love, ANC; **Treasurer:** Col. Luzerne M. Tidd, AUS-Rtd.

OZARK CHAPTER—**Secretary:** Capt. Richard H. Thompson, Fort Chaffee Exchange, Fort Chaffee, Arkansas. **President:** Mr. James H. Clendenning; **First Vice President:** Mr. William E. Drenner; **Second Vice President:** Mr. James S. Beckman; **Treasurer:** MSGt Daniel A. Reed.

PALM BEACH CHAPTER—P.O. Box 6488, West Palm Beach, Florida. **President:** Col. Raymond Shepley, USAR; **First Vice President:** Maj. Gilbert S. Swem, USA-Rtd.; **Second Vice President:** Capt. Robert de Marcellus, FNG; **Secretary:** Maj. Millard L. Mather, USAR; **Treasurer:** MSGt Harvey J. Bixler, USAR.

Charter night dinner meeting held at Palm Beach Air Force Base 23 April. Lt. Col. Leonard McNutt, U. S. Army Military Sub-District, South Florida, was featured speaker and presented the charter for national AUSA. Chapter has been exceptionally fortunate in acquiring local publicity.

PIKES PEAK CHAPTER—P.O. Box 2442, Colorado Springs, Colorado. **President:** Lt. Col. J. D. Ackerman, USAR; **Executive Vice President:** Major Gen. William H. Gill, USA-Rtd.; **Vice President for Membership:** Mr. George S. Winters; **Vice President for Programs:** Mr. Samuel T. Jones, Jr.; **Secretary:** Lt. Col. Frank A. Golbey, AUS-Rtd.; **Treasurer:** Major H. C. Fleming, Jr., USAR.

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SAN BERNARDINO COUNTY CHAPTER—c/o MSGt Gerald Morgan (**Treasurer**), Comptroller's Section, Camp Irwin, California. **President:** Mr. George W. Savage; **First Vice President:** Mr. Victor J. Smith; **Second Vice President:** Lt. Col. Christian E. Petersen, AUS-Rtd.; **Secretary:** MSGt Alfred Schmidt.

Meeting 10 March at Camp Irwin Officers Open Mess heard Mr. Hugo Wilde speak on AUSA's 1957 Annual Meeting. Chapter passed resolutions concerning housing and recreation facilities at Camp Irwin and nationally, a federally-supported scientific scholarship program, and requesting national AUSA resolutions to be submitted to chapters before being placed on the agenda for Annual Meetings.

SAN FRANCISCO CHAPTER—**Secretary:** Col. C. C. W. Allan, Deputy Chief of Staff for Public Affairs, Hq Sixth U. S. Army, Presidio of San Francisco, California. **President:** Mr. William M. McNabb; **First Vice President:** Lt. Gen. Claude B. Ferenbaugh, USA-Rtd.; **Second Vice President:** Mr. Woodward Melone; **Third Vice President:** Lt. Col. Margaret M. Thornton; **Fourth Vice President:** Lt. Col. Phillip J. Sinnott, AUS-Rtd.; **Treasurer:** Mr. Albert Leslie.

SANTA BARBARA-VENTURA COUNTY CHAPTER—**Secretary-Treasurer:** Maj. Albert D. MacArthur, USA-Rtd., 735 State Street, Santa Barbara, California. **President:** Brig. Gen. Charles A. Ott, Jr., CNG; **First Vice President:** Mr. Arthur F. Duncan; **Second Vice President:** Mr. Marton A. Smith; **Third Vice President:** Mr. Elmer Coopersmith; **Fourth Vice President:** Capt. Lloyd F. Oleson, Rtd.

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SEATTLE CHAPTER—The Officers' Open Mess, Fort Lawton, Washington. **President:** Mr. Arthur T. Lee; **First Vice President:** Mr. Joseph A. Sweeney; **Second Vice President:** Brig. Gen. Harold L. Goss, USAR-Rtd.; **Secretary:** Col. John R. Dey; **Treasurer:** Mr. Paul Danforth.

SIOUX FALLS CHAPTER—**Secretary:** Capt. James E. Moore, 2316 S. Third Street, Sioux Falls, S. D. **President:** Mr. Dan Dugan; **First Vice President:** Mr. Al A. Schok; **Second Vice President:** Mr. William C. Duffy; **Treasurer:** 1st Lt. Fred Masek.

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SOUTHEAST ALABAMA CHAPTER—P.O. Box 159, Fort Rucker, Alabama. **President:** Mayor M. N. Brown; **First Vice President:** Mr. Selden Bailey; **Second Vice President:** Mayor Douglas Brown; **Third Vice President:** Mr. Rex Roach; **Secretary-Treasurer:** Lt. Col. Robert L. Huffaker.

SOUTHEASTERN NEW MEXICO CHAPTER—**Secretary:** Mr. William I. Anderson, DAC, Military Science Building, NMMI, Roswell, New Mexico. **President:** Maj. Leonard M. Witcher, USAR; **First Vice President:** Capt. Roland Tessier, NG; **Second Vice President:** 1st Lt. Dick Mulkey, USAR; **Treasurer:** Capt. Roy Fry, NG.

Quarterly meeting 16 May resulted in election of above officers. Entertainment at the "Dutch" dinner was provided by an instrumental group from Roswell Senior High School.

SOUTHERN ARIZONA CHAPTER—**President pro tem:** Mr. F. W. Boyd Allen, Alumni Association, University of Arizona, Tucson, Arizona; **Treasurer pro tem:** Mr. Robert W. Heyer.

TAMPA AREA CHAPTER—**President:** Lt. Col. Arthur D. Brown, P.O. Box 434, Tampa 1, Florida; **First Vice President:** Lt. Col. Judson B. De Loach; **Second Vice President:** Maj. Lambert P. Friederich; **Third Vice President:** 1st Lt. John Clements; **Secretary:** MSGt Aubrey W. Akin; **Treasurer:** Lt. Col. Wendell S. Lucas.

The Hon. Hugh M. Milton, II, Assistant Secretary of the Army, addressed the chapter, plus some representatives from Pinellas Chapter, 22 May, at a meeting attended by over 200 AUSA members. Attendance was remarkable because this was also drill night for several Reserve and Guard units in the area. Col. Arthur Symons, Secretary, AUSA, presented the charter following Mr. Milton's discussion of world problems.

3d ARMORED DIVISION CHAPTER—**Secretary:** Maj. Thomas A. Cunningham, Hq Combat Command B, 3d Armored Division (Spearhead), APO 39, New York, New York. **President:** Col. Francis J. Murdock, CCB; **First Vice President:** Lt. Col. Robert J. Bennett; **Second Vice President:** Lt. Col. George G. Washburn; **Treasurer:** MSGt Willie B. White.

TOPEKA CHAPTER—**Secretary:** Mr. Bill M. Stevick, U. S. Army Reserve Training Center, 21st and Washington, Topeka, Kansas. **President:** Mr. Harry W. Colmery; **First Vice President:** Mr. George C. Schnellbacher; **Second Vice President:** Mr. Dale E. Moorman; **Treasurer:** Mr. Henry B. Alberg.

TRI-VALLEY CHAPTER—c/o Unit Advisor, United States Army Reserve, Fargo, N. D. **President:** Maj. Julian L. Benshoof, USAR; **First Vice President:** Mr. Truman C. Wold; **Second Vice President:** Maj. Adolph K. Stromme, USAR; **Corresponding Secretary:** Col. Sidney E. Iverson, USAR; **Recording Secretary:** MSp Frank C. Gumeringer, USAR; **Treasurer:** MSgt Martin A. Holsen, USNG; **Chaplain:** 1st Lt. Archie N. Campbell, USAR.

TWIN CITIES CHAPTER—**Secretary:** Col. John H. Derrick, USA-Rtd., 950 McKnight Building, Minneapolis 1, Minn. **President:** Mr. R. B. Rathbun; **First Vice President:** Brig. Gen. James Myers, USAR; **Second Vice President:** Mr. Clyde A. Parton; **Treasurer:** Lt. Col. Robert L. Stuebing, USAR.

WASHINGTON STATE CHAPTER NO. 1—**Secretary:** Lt. Col. John A. Spencer, Fort Lewis Exchange, Fort Lewis, Washington. **President:** Mr. Harry L. Minor; **First Vice President:** Mr. Fred C. Osmers; **Second Vice President:** Mr. Ray Clark; **Treasurer:** Mr. R. Nat Hatcher.

WESTCHESTER COUNTY CHAPTER—Box 444, HQ U. S. Army Garrison, Fort Slocum, N. Y. **President:** Col. L. N. Cron; **First Vice President:** Chap. (Col.) James T. Wilson; **Second Vice President:** Mr. John Leykan; **Secretary-Treasurer:** Mr. Harold Greene.

Although one of AUSA's smaller chapters, Westchester County is one of the most active. Activities include continuing membership campaign, participation in most Fort Slocum events, and civilian-military contacts at all levels.

WILLIAM PENN CHAPTER—Bridge and Tacony Streets, Philadelphia 37, Pa. **President:** Mr. C. C. Fawcett; **First Vice President:** Mr. George A. Miller, Jr.; **Second Vice President:** Mr. Kenneth E. Yocom; **Secretary:** Mr. Robert McCullough; **Treasurer:** Miss Hilda Price.

WOLTERS CHAPTER—c/o Information Section, Camp Wolters, Mineral Wells, Texas. **President:** Mr. Tom Creighton; **First Vice President:** Mr. Edgar Bowden; **Second Vice President:** Dr. H. A. Zappe; **Third Vice President:** Col. Chester H. Meek; **Corresponding Secretary-Treasurer:** Capt. John J. Peterson; **Recording Secretary-Treasurer:** Mr. Jess Everett.

ROTC COMPANIES

CANISIUS COLLEGE COMPANY, Canisius College, Buffalo, New York—**Captain:** Cadet Daniel T. Kirst; **First Lieutenant:** Cadet Thomas R. Block; **Second Lieutenant:** Cadet Joseph S. DePaolo; **First Sergeant:** Cadet Paul C. Weaver.

CITADEL COMPANY, The Citadel, Charleston, S. C.—**Captain:** Cadet Ronald Zeltman; **First Lieutenant:** Cadet Eugene Cannon; **Second Lieutenant:** Cadet Jerry Wright; **First Sergeant:** Cadet Art Richards.

CLARKSON COMPANY, Clarkson College of Technology, Potsdam, New York—**Captain:** Cadet Donald Broadhurst; **First Lieutenant:** Cadet Robert F. Koenig; **Second Lieutenant:** Cadet Charles Fish; **First Sergeant:** Cadet Sigmund Mierzwa.

DAKOTA COMPANY, North Dakota Agricultural College, Fargo, N. D.—**Captain:** Cadet John H. Huntley; **First Lieutenant:** Cadet James A. Maetzold; **Second Lieutenant:** Cadet William K. Fraase; **Social Chairman:** Cadet Stanley F. Lindine; **First Sergeant:** Cadet Richard E. Eggen.

DICKINSON COLLEGE COMPANY, Dickinson College, Carlisle, Pennsylvania—**Captain:** Cadet J. P. Wade; **First Lieutenant:** Cadet E. Gottschall; **Second Lieutenant:** Cadet B. Falconer; **First Sergeant:** Cadet W. W. Humes; **PIO Sergeant:** Cadet R. D. Charles.

DUQUESNE UNIVERSITY COMPANY, Duquesne University, Pittsburgh 19, Pa.—**Captain:** Cadet Francis R. Schmidt; **First Lieutenant:** Cadet Eligio A. Deluca; **Second Lieutenant:** Cadet Robert Rocks; **First Sergeant:** Cadet James H. McAllister.

EASTERN CADET OFFICERS COMPANY, Eastern Kentucky State College, Richmond, Kentucky—**Captain:** Cadet John N. Combs; **First Lieutenant:** Cadet W. S. Wainscott; **Second Lieutenant:** Cadet Robin D. Wagoner; **First Sergeant:** Cadet James L. Davis.

EDMUND R. WALKER COMPANY, University of Connecticut, Storrs, Connecticut—**Captain:** Cadet Juris Lapins; **First Lieutenant:** Cadet Juri Martinson; **Second Lieutenant:** Cadet Alan S. Cooper; **First Sergeant:** Cadet John A. DelBuono.

Meeting 8 May built around the theme of preparing for summer

camp; oral and film presentations. Picnic 6 May was well attended. Company has been accepted by University authorities as a professional society.

FARRIS-WARE AUSA COMPANY, Prairie View A&M College, Prairie View, Texas—**Captain:** Cadet Carl L. Young; **First Lieutenant:** Cadet Marvin D. Brailsford; **Second Lieutenant:** Cadet Alderus Stewart; **First Sergeant:** Cadet Leonard C. Gee.

Charter meeting 18 April included dinner. Brig. Gen. Robert Q. Brown, DivAtry Commander, 2d Armored Division, Guest of Honor, spoke on the necessity for coordination between the military and the civilian population, and presented the charter on behalf of national AUSA. The family of the late Lt. William Farris, one of the officers for whom the Company was named, was introduced. Further remarks were made by Dr. E. B. Evans, President of the college, and Col. Thomas H. Wright, PMST.

Meeting 2 May elected above officers, and planned for future programs.

FLORIDA SOUTHERN COLLEGE COMPANY, Florida Southern College, Lakeland, Florida—**Captain:** Cadet Robert P. Jones; **First Lieutenant:** Cadet Richard Fulford; **Second Lieutenant:** Cadet William Hatton; **First Sergeant:** Cadet John D. Watson.

GEORGETOWN UNIVERSITY ROTC COMPANY, Georgetown University, Washington, D. C.—**Captain:** Cadet George F. Landegger; **First Lieutenant:** Cadet John A. Leide; **Second Lieutenant:** Cadet Robert J. Spazzarini; **First Sergeant:** Cadet Joseph J. Kane.

GORDON COMPANY, Gordon Military College, Barnesville, Georgia—**Captain:** Cadet James E. Ethridge; **First Lieutenant:** Cadet David L. Cammer; **Second Lieutenant:** Cadet Daniel E. Zellner; **First Sergeant:** Cadet Dennis McKoy.

IDAHO STATE COLLEGE COMPANY, Idaho State College, Pocatello, Idaho—**Captain:** Cadet Harvey I. Buckles; **First Lieutenant:** Cadet Corwin Lott; **Second Lieutenant:** Cadet Larry R. Duff; **First Sergeant:** Cadet John A. Duff.

Lt. Col. John J. Dunlop addressed 29 April meeting on the subject of Reserve obligations, followed by question-and-answer session. Meeting 15 May featured Prof. Joseph A. Hearst, head of the Political Science Department of the College, who gave a talk on how to analyze military history.

ILLINI COMPANY, University of Illinois, Champaign, Illinois—**Captain:** Cadet Ed Madsen; **First Lieutenant:** Cadet Tom Metzer; **Second Lieutenant:** Cadet Dick Bartz; **First Sergeant:** Cadet Bill Miner.

INDIANA STATE TEACHERS COLLEGE ROTC COMPANY, State Teachers College, Indiana, Pennsylvania—**Captain:** Cadet William Vernon Miller; **First Lieutenant:** Cadet Warren Neal Edmiston; **Second Lieutenant:** Cadet Richard A. Erickson; **First Sergeant:** Cadet Arthur J. Correll.

Col. Charles A. Richie, QM Second U. S. Army, discussed the cadets' future in the Quartermaster Corps at 30 April meeting. Above officers elected and installed.

JOHN CARROLL UNIVERSITY COMPANY, John Carroll University, Cleveland 18, Ohio—**Captain:** Cadet James Lawlor; **First Lieutenant:** Cadet Donald Gould; **Second Lieutenant:** Cadet Thomas Barrowman; **First Sergeant:** Cadet Robert Kapitan.

KEMPER MILITARY SCHOOL COMPANY, Kemper Military School, Boonville, Missouri—**Captain:** Cadet M. R. Richardson; **First Lieutenant:** Cadet Joseph N. Sailor; **Second Lieutenant:** Cadet R. A. Wagner; **First Sergeant:** Cadet Merle E. Duensing.

LA SALLE ROTC COMPANY, La Salle Military Academy, Oakdale, Long Island, New York—**Captain:** Cadet William A. Boehm; **First Lieutenant:** Cadet Rovert J. Klimek; **Second Lieutenant:** Cadet Richard E. Pluchinsky; **First Sergeant:** Cadet Louis H. DeThomasis.

Nineteen new members added at 8 May meeting.

LOUISIANA STATE UNIVERSITY COMPANY, Louisiana State University, Baton Rouge 3, Louisiana—**Captain:** Cadet John D. Badeaux; **First Lieutenant:** Cadet Sidney P. Dugas; **Second Lieutenant:** Cadet Royce M. Bourque; **First Sergeant:** Cadet Lloyd C. Dupuy.

LOYOLA COLLEGE COMPANY, Loyola College, Baltimore 10, Md.—**Captain:** Cadet William R. Gegner; **First Lieutenant:** Cadet Hugh F. McKenna, Jr.; **Second Lieutenant:** Cadet William A. Noonberg; **First Sergeant:** Cadet Peter C. Santoni.

THE LOYOLA UNIVERSITY COMPANY, Loyola University, 6525 Sheridan Road, Chicago 26, Illinois—**Captain:** Cadet Thomas Nolan; **First**

Lieutenant: Cadet Eugene Crosant; **Second Lieutenants:** Cadets Gerald Pierce and Harold Murphy; **First Sergeant:** Cadet Paul M. Maffia.

LT. CHARLES J. FITE COMPANY, Gettysburg College, Gettysburg, Pennsylvania—**Captain:** Cadet Henry F. Coyne; **First Lieutenant:** Cadet Gary L. Seufert; **Second Lieutenant:** Cadet James D. Dethlesen; **First Sergeant:** Cadet Ronald E. Nitzsche.

THE MANLIUS COMPANY, The Manlius School, Manlius, New York—**Captain:** Cadet William W. Rankin; **First Lieutenant:** Cadet Taylor Devine; **Second Lieutenant:** Cadet John Ramsey; **First Sergeant:** Cadet Russell A. Jahn; **Staff Sergeant:** Cadet Peter Cookson.

Meeting 20 April was held at the home of Maj. Gen. Ray W. Barker, who spoke on the Normandy invasion.

Major William S. Henry, Jr., was featured speaker for 18 May meeting, covering the Army Satellite and Missile Program. Mr. John MacDonald, Headmaster of Manlius, and Maj. Charles S. Pierce, assistant PMST, were guests. Twenty new members were accepted, and above officers installed.

MOCCASIN COMPANY, University of Chattanooga, Chattanooga, Tenn.—**Captain:** Cadet John Doyle; **First Lieutenant:** Cadet Hoyt Jenkins; **Second Lieutenant:** Cadet Lawrence Putnam; **First Sergeant:** Cadet Thomas Murphy.

MONTANA STATE UNIVERSITY ARMY ROTC COMPANY, Montana State University, Missoula, Montana—**Captain:** Cadet Harold Archibald; **First Lieutenant:** Cadet Larry Newell; **Second Lieutenant:** Cadet William Steinbrenner; **First Sergeant:** Cadet William Crawford.

Program for 6 May meeting included discussion of three phases of combat officer training: *Airborne*, Capt. Robert Harper, Inf.; *Aviation*, Lt. William Demmons, Inf-USAR; and *Ranger*, Lt. Jack Demmons, Inf. A question-and-answer session completed this phase of the program. A movie adaptation of the "Big Picture" television production, showing late developments in combat effectiveness, completed the program.

NEW YORK UNIVERSITY HEIGHTS COMPANY, New York University, 181st St. and University Ave., New York 53, New York—**Captain:** Cadet William S. Montag; **First Lieutenant:** Cadet Charles J. Harris; **Second Lieutenant:** Cadet Ronald DiStefano; **First Sergeant:** Cadet Joseph P. Bohn.

"OLE MISS" COMPANY, The University of Mississippi, University, Mississippi—**Captain:** Cadet Monroe Pointer; **First Lieutenant:** Cadet Robert M. Williams, Jr.; **Second Lieutenant:** Cadet Kent E. Lovelace; **First Sergeant:** Cadet Lowell O. Winston, Jr.

PENNSYLVANIA STATE UNIVERSITY COMPANY, The Pennsylvania State University, University Park, Pennsylvania—**Captain:** Cadet Alan E. Lees; **First Lieutenant:** Cadet William C. Abbey; **Second Lieutenant:** Cadet Patrick C. Kinney; **First Sergeant:** Cadet Ward R. Swain.

Program for 22 April meeting was built on the subject of what is expected of a new second lieutenant. Capt. A. R. Lentini covered reporting to a new post; Lt. T. B. Ellison spoke on personal possessions to take to the first post of duty; Lt. G. J. John described social activities.

RAM COMPANY, Fordham University, New York 58, New York—**Captain:** Cadet Richard F. Mulvey; **First Lieutenant:** Cadet Edward J. McLoughlin; **Second Lieutenant:** Cadet Nicholas E. Barreca; **First Sergeant:** Cadet William A. Imhof.

ROBERT E. SYLVEST COMPANY, Northwestern State College of Louisiana, Natchitoches, Louisiana—**Captain:** Cadet John Vermaelin; **First Lieutenant:** Cadet John Barkate; **Second Lieutenant:** Cadet Edwin Cathey; **First Sergeant:** Cadet Michael Murphy.

Cadets Gerald Schorr and W. Wood conducted a program of information for those going to summer camp, at meeting 8 May.

SIENA ROTC COMPANY, St. Bernardine of Siena College, Loudonville, New York—**Captain:** Cadet Paul R. Riley, Jr.; **First Lieutenant:** Cadet John W. Stahlman; **Second Lieutenant:** Cadet Louis R. LaGasse; **First Sergeant:** Cadet J. Vincent Chesterfield.

SIOUX COMPANY, University of North Dakota, Grand Forks, North Dakota—**Captain:** Cadet Austin R. Smith; **First Lieutenant:** Cadet James F. Marquardt; **Second Lieutenant:** Cadet Terry N. Thorstenson; **First Sergeant:** Cadet Bruce D. Sillers.

Dr. Erich Selke, Professor of Education, addressed 13 April meeting on "Citizenship." Above officers installed same meeting.

"SOONER COMPANY", University of Oklahoma, Norman, Oklahoma—**Captain:** Cadet W. R. Delp; **First Lieutenant:** Cadet J. K. Smith;

Second Lieutenant: Cadet W. R. Rhynes; **First Sergeant:** Cadet E. D. Lazorchak.

Eighteen members of the Company attended a 3-day orientation at Fort Benning 23-25 April. Above officers elected 15 May.

ST. NORBERT COLLEGE COMPANY, St. Norbert College, West de Pere, Wisconsin—**Captain:** Cadet Duane L. Hoerning; **First Lieutenant:** Cadet Richard Van Egeren; **Second Lieutenant:** Cadet Rene J. Emond; **First Sergeant:** Cadet John Payne.

Dance 18 April returned a profit of \$26.70 to the Company. Discussion at meeting 1 May centered around ideas for Company activities.

TEXAS CHRISTIAN UNIVERSITY COMPANY, Texas Christian University, Fort Worth 9, Texas—**Captain:** Cadet Larry Lands; **First Lieutenant:** Cadet Frank Hyde; **Second Lieutenant:** Cadet Kenneth Howard; **First Sergeant:** Cadet Jimmy Lindsey; **Sergeants:** Cadets Ronnie Coleman, George Depee, Joe Dulle and Robert Fleming.

TEXAS TECH COMPANY, Texas Technological College, Lubbock, Texas—**Captain:** Cadet John Campbell; **First Lieutenant:** Cadet Terry Lines; **Second Lieutenant:** Cadet Ardith Rowan; **First Sergeant:** Cadet Gerald McWilliams.

TULANE ROTC COMPANY, Tulane University, New Orleans 18, Louisiana—**Captain:** Cadet Terrence D. Sargent; **First Lieutenant:** Cadet Robert D. Mitchell, Jr.; **Second Lieutenant:** Cadet Roy S. Lombardo; **First Sergeant:** Cadet Jac L. King.

UNIVERSITY OF DETROIT CAVALIER COMPANY, University of Detroit, Detroit, Michigan—**Captain:** Cadet James I. Murphy; **First Lieutenant:** Cadet Richard J. Fleming; **Second Lieutenant:** Cadet Thomas L. Campbell; **First Sergeant:** Cadet Victor T. Squires; **Sergeant:** Cadet Russell W. Green.

Company has decided to continue work on AUSA projects during summer vacation period.

UNIVERSITY OF IDAHO COMPANY, University of Idaho, Moscow, Idaho—**Captain:** Cadet Richard A. Koster; **First Lieutenant:** Cadet Bruce G. Summers; **Second Lieutenant:** Cadet Fred L. Ringe; **First Sergeant:** Cadet Kent E. Harrison.

UNIVERSITY OF TEXAS COMPANY, University of Texas, Austin 12, Texas—**Captain:** Cadet Donald Raynsford; **First Lieutenant:** Cadet Charles C. Mason; **Second Lieutenant:** Cadet Don K. Meier; **First Sergeant:** Cadet Mark S. Smith.

V. RAYMOND EDMAN COMPANY, Wheaton College, Wheaton, Illinois—**Captain:** Cadet Ardon Toland; **First Lieutenant:** Cadet Robert Adolph; **Second Lieutenant:** Cadet Bruce Anderson; **First Sergeant:** Cadet James J. Cicero.

VALLEY FORGE COMPANY, Valley Forge Military Academy, Wayne, Pennsylvania—

Meeting 28 April accepted five new cadets, and reviewed several films for possible presentation to the Corps. As a result of this meeting, the Company sponsored the visit of the Russian Demonstration Team from Headquarters, Second United States Army, which team presented a 75-minute skit that held the attention of the entire student body.

VIRGINIA POLYTECHNIC INSTITUTE COMPANY, Virginia Polytechnic Institute, Blacksburg, Virginia—**Captain:** Cadet A. B. Childrey; **First Lieutenant:** Cadet C. E. Longest; **Second Lieutenant:** Cadet D. R. Stanton; **First Sergeant:** Cadet W. A. Stuart.

New officers, above, elected at 1 May meeting. Initiation banquet for new cadets was held 8 May at the Faculty Center. Company combined with local chapter of the Society of American Military Engineers to visit Radford Arsenal 15 May for 3-hour tour, and upon return to VPI the same evening viewed the Pentomic Army film.

WASHINGTON AND JEFFERSON ROTC COMPANY, Washington and Jefferson College, Washington, Pennsylvania—**Captain:** Cadet Robert O. Hays; **First Lieutenant:** Cadet Thomas A. Halter; **Second Lieutenant:** Cadet Geoffrey W. Bennett; **First Sergeant:** Cadet John S. Perry.

Company visited Nike site 19 April. Program for 15 May meeting was motion pictures taken in Korea by Col. Robert B. Campbell, Faculty Advisor.

WEST TEXAS STATE COMPANY, West Texas State College, Canyon, Tex.—**Captain:** Cadet Gaylon L. Johnson; **First Lieutenant:** Cadet Jackie J. Alexander; **Second Lieutenant:** Cadet Ralph D. Gowen; **First Sergeant:** Cadet Sam W. Hodges, Jr.

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